SERVICE MANUAL
MOBILE RADIO

TM-628H

Hytera HYT
is the trademark of Hytera Communications Corp., Ltd.
© 2010 Hytera Corp., Ltd. All Rights Reserved.

Address: HYT Tower, Hi-Tech Industrial Park North, Beihuan RD., Nanshan District, Shenzhen, China
Postcode:518057
http://www.hytera.cn

L06774 X05031
8130062800000

Contents

Introduction……..2
Safety Information……..2
Radio Overview……..4
Software Specification……....7
Circuit Description……...13
Semiconductor Data……18
Component Description……23
Parts List 1……24
Tuning Description……..62
Terminal Function……76
Troubleshooting Flow Chart……79
Disassembly and Re-assembly for Repair……83
Exploded View……86
Parts List 2……87
Packing……89
PCB View……90
Block Diagram……...96
Schematic Diagram……...97
Specifications……....114

Introduction

Manual Scope

This manual is intended for use by experienced technicians familiar with similar types of communication equipment. It contains all service information required for the equipment and is current as of the publication date.

Safety Information

The following safety precautions shall always be observed during operation, service and repair of this equipment.

- This equipment shall be serviced by qualified technicians only.
- Do not modify the radio for any reason.
- Use only Hytera supplied or approved antenna.
- Gain of antenna must not exceed 3dBi for VHF or 5.5dBi for UHF.
- Mobile antenna Installation: Install the mobile antenna at least 82cm (32 inches) away from your body, in accordance with the requirements of the antenna manufacturer/supplier.
- Transmit only when people inside and outside the vehicle are at least the minimum distance away from a properly installed, externally mounted antenna.
- Mobile antenna substitution: Don’t substitute Hytera supplied or approved antenna, or excessive radio frequency radiation will result. Please contact your dealer or the manufacturer for further instructions.
- Please make sure there’s no stress on the antenna joint during transportation or installation.
- To avoid electromagnetic interference and/or compatibility conflicts, turn off your radio in any area where posted notices instruct you to do so. Hospital or health facilities may be using equipment that is sensitive to external RF energy.
- For vehicles with an air bag, do not place a radio in the area over an air bag or in the air bag deployment area.
- Turn off your radio prior to entering any area with explosive and flammable materials.
- Do not expose the radio to direct sunlight over a long time, nor place it close to heating source.

■ Operation Guidelines

For vehicles equipped with electronic anti-skid braking systems, electronic ignition systems or electronic fuel injection systems, interferences may occur during radio transmission. If the foregoing electronic equipments are installed on your vehicle, please contact your dealer for further assistance to make sure that radio transmission will not interfere with these equipments.

For radio installation in vehicles fueled by LP gas with LP gas container within interior of the vehicles, the following precautions are recommended for personal safety.

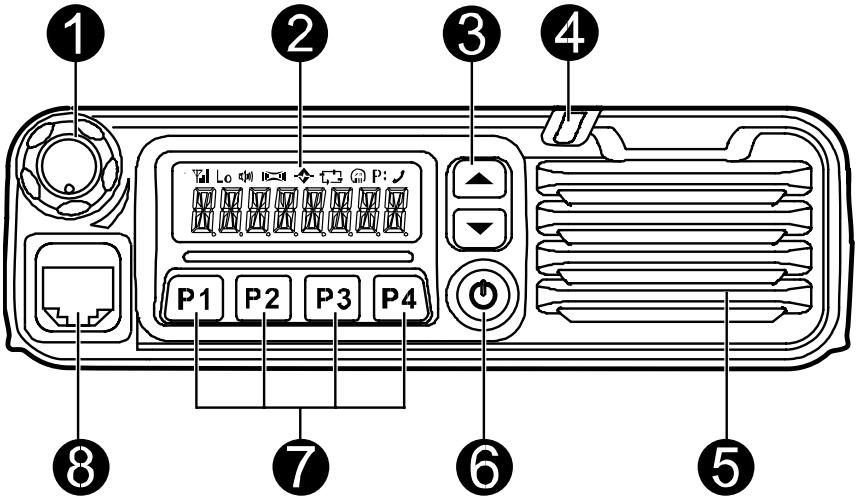
1. Any space containing radio equipment shall be isolated by a seal from the space in which the LP gas container and its fittings are located.
2. Remote (outside) fitting connections shall be used.
3. Good ventilation is required for the container space.

■ Installation Guidelines

- Vehicle installation: The antenna can be mounted at the center of a vehicle metal roof or trunk lid if the minimum safe distance is observed.
- Do not mount the mobile radio overhead or on a sidewall unless you take special precautions.
- If the mobile radio is not properly installed, road shock could bump the radio loose, and the falling radio could, in some circumstances, cause serious injury to the driver or a passenger. In case of vehicle accidents, even when properly installed, the radio could break loose and become a dangerous projectile.

Radio Overview

Front Panel View



① Volume Control Knob

② LCD

③ Programmable Functions Keys (**[▲]** / **[▼]**)

④ LED Indicator

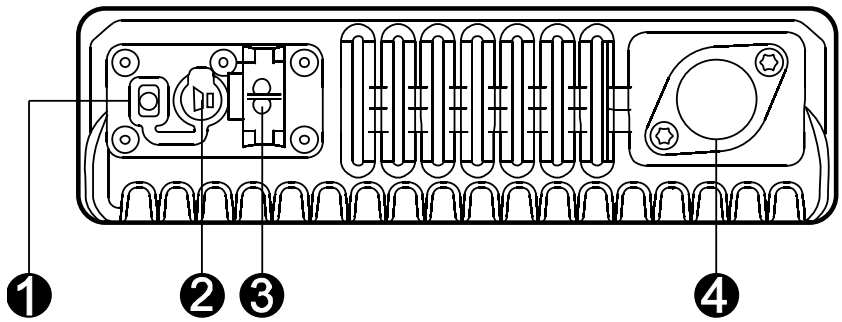
⑤ Speaker

⑥ Power Switch

⑦ Programmable Functions Keys (**[P1]**/**[P2]**/**[P3]**/**[P4]**)

⑧ Mic Jack

Rear Panel View



① 15-Pin Connector (for external expansion)

② External Speaker Jack

Used to connect the external speaker (for the 3.5mm plug only).

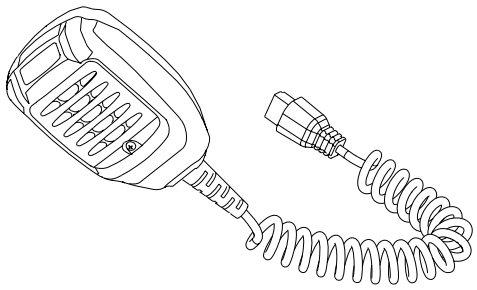
Note: Please refer to “Test Cable for Speaker Output” in “Tuning Description” for details.

③ Power Inlet

Used to connect the Hytera-authorized DC power cable for input of 13.6V DC power.

④ Antenna Connector

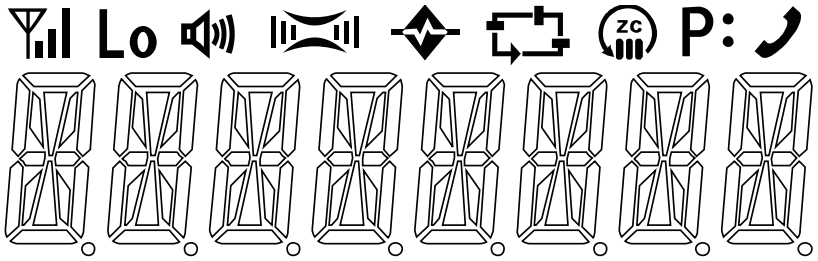
Microphone

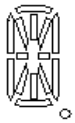


■ LED Indicator

Indicator	Description
Solidly glows red	The radio is transmitting signals.
Solidly glows green	The radio is receiving signals.
Flashes orange	The radio has received encoding squelch, select calls or 2-tone calls.

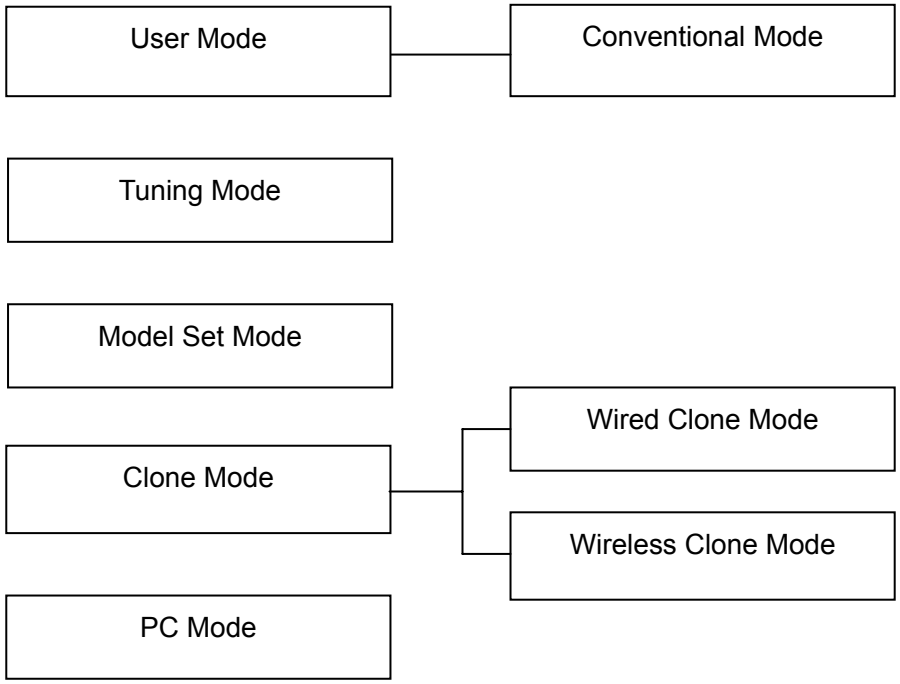
■ LCD Display



Indicator	Description
	Displays CH number/name, zone number/name, DTMF number, frequency, menu and options, etc.
Lo	Indicates low power output.
	Press the **Monitor** key: 1. The icon is displayed when CTCSS/CDCSS and 2-Tone decoding is off. 2. The icon is displayed when the speaker is unmuted.
	Appears when the radio begins to scan
	Appears when the radio is transmitting a selected call.
	C indicates that the current channel is in the scan list. Z indicates multi zone scan.
	Appears when the Scrambler feature is enabled.
	Appears when the Compandor feature is enabled.
	Appears when the current channel is already in use.
	Indicates the current channel is the priority channel. **P•** indicates priority channel 1, **P.** indicates priority channel 2, **P:** indicates priority channels 1 and 2.

Software Specification

Frame of Radio Modes



Keypad Entry for Mode Startup

Mode	Display	Operation	Remarks
User Mode	Welcome Screen and then CH number	The radio enters User Mode upon power-on.	Conventional Mode
Panel Tuning Mode	TXHIGH	Power the radio on while holding down **P1**.	
Model Set Mode	DESTINA0	Power the radio on while holding down **P2**.	
Clone Mode	CLONE	Power the radio on while holding down **P3**.	
Firmware Version Display Mode	Firmware Version VX.XX.XX	Power the radio on while holding down **P4**.	
PC Mode	PROGRAM	Connect the mobile radio to PC via the programming cable, and then send commands via PC.	

User Mode

Power on the radio and you will enter this conventional mode.

Panel Tuning Mode

You can perform tuning in the following steps:

1) Power on the radio while holding down **P1** to enter the tuning mode.
2) Use ▲/▼ to select the tuning item, and press **P4** to enter.
3) After you enter the sub-item by pressing **P4**, use ▲/▼ to adjust the parameter, and press **P4** to save and enter the next sub-item; or press **P1** to return to the previous menu without saving the settings.

Tuning items and display (***: 1-256): Please go to *Tuning Description---Panel Tuning Mode---Tuning items and Display* for details.

Model Set Mode

You can go with operations in this mode as follows:

1) Power on the radio while holding down **P2** to enter the Model Set mode. At this time, the LCD displays "DESTINA.*", where "*" represents the model number.

2) Use ▲/▼ to select the model number 0-5.

3) Press **P4** to confirm your selected model number. The LED glows orange and the LCD displays "WAIT". After reset, the radio enters User mode.

Note: Once a new model is set by pressing **P4**, the previously stored channel information (such as frequency, CTCSS/CDCSS and functions assigned to each channel) will be cleared, and some functions will also be changed. Therefore, do not perform this operation unless it's very necessary (e.g. when EEPROM is replaced).

Clone Mode

Data can be transferred from radio to radio either by wired cloning or wireless cloning. Operation methods are given in the following paragraphs.

Wired Clone Mode

1) Power on the source radio while holding down **P3**. The radio displays "CLONE" and enters Clone mode or enters User Mode if Clone Mode is set OFF by your dealer.
2) Press **P3** to switch between Dealer Clone Mode and Factory Clone Mode, with "DEACLONE" and "FACCLONE" displayed respectively. The radio restores its original display mode in 5 seconds. Dealer Clone Mode is the default mode in which tuning data and embedded messages will not be cloned. However, in Factory Clone Mode, all data will be cloned.
3) Connect two radios using a clone cable, and then turn on the target radio.

4) Press **P4** on the source radio to start cloning. LED on the source radio glows red, and it begins to transmit data to the target radio. During the cloning process, LCD of the target radio displays “PROGRAM” and its LED glows green. Upon completion of cloning, LCD of the source radio displays “END”. And the target radio automatically enters User Mode after receiving all data.
5) Press **P4** on the source radio to return to Clone Mode, and “CLONE” is displayed. Repeat the above steps for further wired cloning.

Wireless Clone Mode

1) Power on the source radio while holding down **P3**. The radio displays “CLONE” and enters Clone mode or enters User Mode if Clone Mode is set OFF by your dealer.
2) Press **P1** to enter Wireless Clone Mode. The LCD displays “WIRELESS” for about two seconds, and then displays its channel frequency (wireless cloning is performed at this frequency). Press **P1** again to return to Clone Mode, or press ▼ to switch the channel for wireless cloning.
3) Press **P3** to switch between Dealer Clone Mode and Factory Clone Mode, with “DEACLONE” and “FACCLONE” displayed respectively. The radio restores its original display mode in 5 seconds. Dealer Clone Mode is the default mode in which tuning data and embedded messages will not be cloned. However, in Factory Clone Mode, all data will be cloned.
4) For the target radio, repeat the above steps 1) and 2), and set its cloning frequency the same as that of the source radio. Place the target radio close to the source radio, and press **P4** of the source radio to start cloning.
5) The source radio is transmitting data to the target radio. During data transmission, the source radio displays the percentage of the transmitted data, with red LED glowing. During data receiving, the target radio displays the percentage of the received data and a “BUSY” icon, with orange LED glowing.
6) Upon completing of data transmission, LCD of the source radio displays “END” and the LED flashes red. Press **P1** to read the cloning frequency and repeat the above steps to continue. The target radio enters User Mode automatically after receiving all data.

Note: Clone Mode can be enabled or disabled by your dealer. You can perform cloning only when such mode is enabled by your dealer.

Firmware Version Display Mode

Power on the radio while holding down **P4**. The LCD displays the firmware version accordingly. Release **P4** to enter User Mode automatically.

PC Mode

Connect the mobile radio to a PC using a programming cable. Data can be transmitted to the mobile radio and saved in the EEPROM.

You can configure the parameters and tune the mobile radio via the programming software.

1） Once PC starts to transfer data to the mobile radio, “PROGRAMM” will be displayed on the LCD. When the data is written to the mobile radio, the LED glows green; and when the data is read from the mobile radio, the LED glows red. The mobile radio will reset automatically when programming is completed.

2） The following items can be set via programming software:

- TX High Power
- TX Low Power
- Maximum Frequency Deviation
- CDCSS Balance
- CTCSS Deviation (67.0Hz)
- CTCSS Deviation (151.4Hz)
- CTCSS Deviation (254.1Hz)
- CDCSS Deviation
- DTMF Deviation
- MSK Deviation
- Single Tone Deviation
- RX Sensitivity
- Squelch ON Level (9)
- Squelch ON Level (3)
- Squelch OFF Level (9)
- Squelch OFF Level (3)

Key Assignment

Your dealer may assign one of the following functions to the programmable key (**P1/ P2/ P3/ P4/ ▲/ ▼**).

See the table below for reference.

Key Assignment				
No.	**Function Key**	**Settings**	**Display**	**Remarks**
1	**[P1]-[P4]** & **[▲]/[▼]**	Off		No function
		CH Up	CH Information	Channel up
		CH Down	CH Information	Channel down
		Zone Up	Zone Information	Zone up
		Zone Down	Zone Information	Zone down
		MONI A	MoniA Icon	Monitor A: Monitor Unmute – Momentary
		MONI B	MoniB Icon	Monitor B: Monitor Unmute – Toggle
		MONI C (default)	MoniC Icon	Monitor C: Carrier Unmute – Momentary
		MONI D	MoniD Icon	Monitor D: Carrier Unmute – Toggle
		Display Frequency	CH Frequency	Displays the channel frequency.
		Display Mode Switch	Mode Information	Displays the channel number, channel label, zone number, zone label and channel frequency.
		User Selectable Tone	UST Information	Tone 01-32 (CTCSS/CDCSS)
		Sel 2-Tone	2-Tone Information	Selects 2-Tone encode.
		TX Power	Power Icon	Displays when the TX power is low.
		Scan	SCAN and Icon	Scan
		Add/Delete	CH Information	Adds or deletes scan channel in non-scan status.
				Temporarily deletes nuisance channel.
		Reverse	RE and CH Number	Reverse Frequency
		Talk Around	TA and CH Number	Talk Around
		SEL SQL	SQL Level	Selects squelch level.
		Home CH	HOME and CH Number	Home Channel
		Public Address	PA	Public Address
		Scrambler	Scrambler Icon	Scrambler
		Compandor	Compandor Icon	Compandor
		Emergency Call	Emergency	Emergency Call
		HDC Encode	HDC Menu	HDC Call
		Lone Worker	LONE ON/OFF	Lone Worker
		Whisper	WHISP ON/OFF	Whisper

		Short Message	Message Menu	Short Message
		Remaining Rental Time Inquiry	Remaining Time	Inquires about the remaining rental time.
		AUX A	AUX A	AUX A
		AUX B	AUX B	AUX B
2	HOOK/ MONI	Hook Check		This option should be selected when palm microphone is used.
		Monitor		This option should be selected when desktop microphone is used.
3	Selector Knob	Selector Knob		For controlling the volume as well as selecting the channel and zone.

Circuit Description

1. Frequency Configuration

The receiver utilizes double conversion superheterodyne. The first IF is 49.95MHz and the second IF is 450KHz. The first local oscillator signal is supplied by the PLL circuit, while the second local oscillator signal (49.5MHz) is generated from X401 directly. The PLL circuit generates the frequencies required for transmission. See Fig.1.

Frequency Range VHF: 136-174MHz

UHF: 400-470MHz

2. Receiver Circuit

The receiver section configuration is shown as Fig. 1.

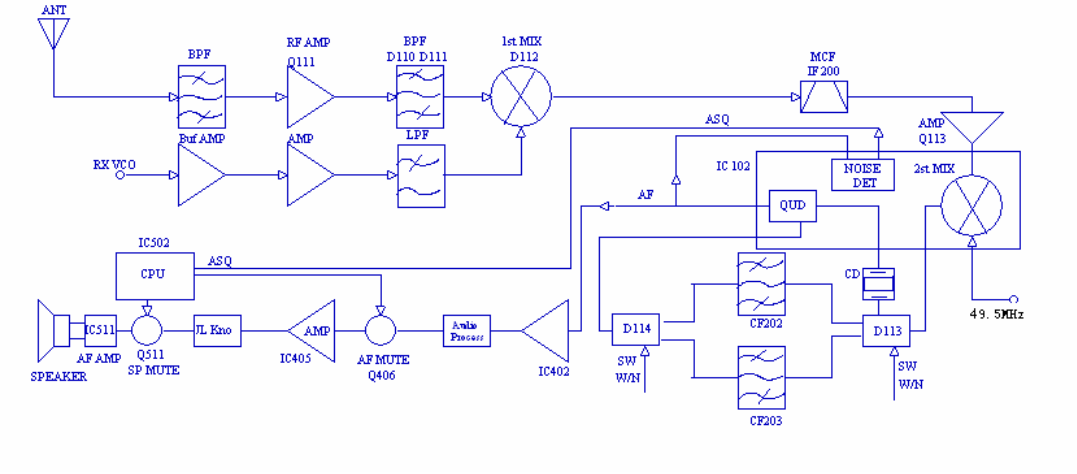


Fig. 1 Receiver Circuit

2.1 RF AMP BPF

The circuit consists of front-stage BPF, RF amplifier (Q111) and final-stage BPF (D110 and D111). The bandpass frequency range varies with the radio models. The BPF is used to eliminate unwanted signals and let only wanted signals go to the mixer.

2.2 First Mixer Circuit

The signal output from RF AMP&BPF is mixed with the first LO signal from the PLL circuit at the mixer (Q112) to generate a 49.95MHz first IF signal. Then the first IF signal will feed through a crystal filter (XF200) to further remove spurious signals.

2.3 IF Amplifier Circuit

After amplified at Q113, the first IF signal enters IC102 (BA4116FV), where it is mixed with the second LO signal (49.5MHz) to generate a 450KHz second IF signal. Then the second IF signal feeds through a

pair of ceramic filters (N: CF202; W: CF203) where unwanted signals are removed. Finally the signal goes to the frequency discriminating circuit of IC102 to output audio signal from Pin 9.

2.4 Audio Amplifier Circuit

The audio signal from IC102 is amplified and filtered at IC402, and then amplified again at IC401 (the received signaling is separated and sent to CPU for decoding). Then the signal passes through Q406 (AF MUTE), and enters IC405 for further amplification. After the volume is controlled at K301 on the control panel, and SP MUTE is controlled at Q511, the signal feeds into IC511 to output audio signal to drive the speaker.

2.5 Squelch Control Circuit

One flow of the audio signals from IC102 feeds into IC102 (from Pin8) for amplification, filtering and rectification, and then a SQL level is derived. Then the SQL level is sent to CPU (IC502) for comparison with the reference level to generate a level which controls AFMUTE and SP MUTE. The level controls Q406 and Q511 to open or close the audio channel.

3. Transmitter Circuit

The transmitter circuit is composed of MIC circuit, modulation circuit, RF driver, final-stage power amplifier circuit and APC circuit.

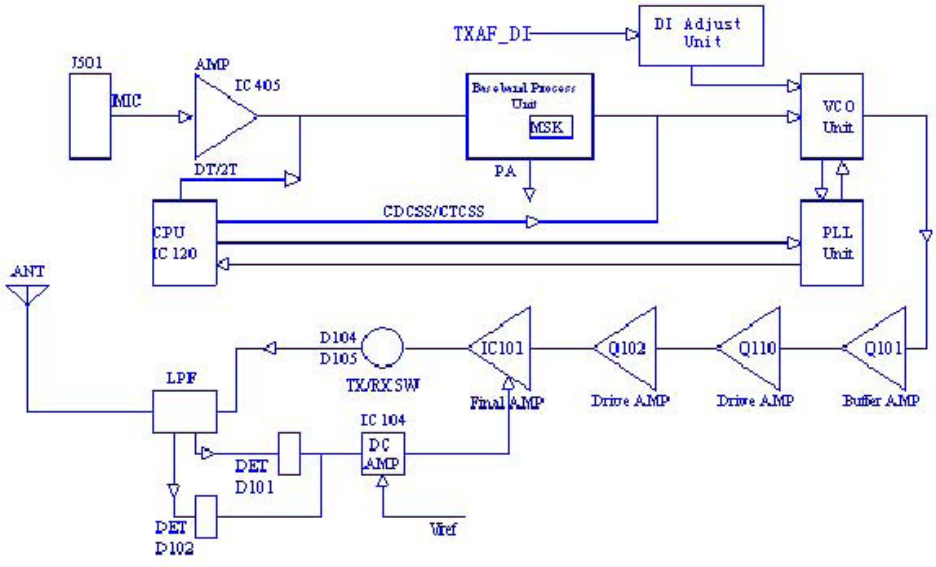


Fig. 2 Transmitter Circuit

3.1 MIC and Modulation Circuit

The audio signal from MIC is amplified at IC405, and further amplified, pre-emphasized and encoded at IC 401. It is added with signaling before going to VCO for modulation.

The DI modulation circuit is composed of IC407 and peripheral circuits (see the figure above). The signal goes to the DI modulation circuit via the TXAF_DI port, and then goes to the VCO unit. The signal amplitude can be adjusted manually via VR802, allowing accurate modulation of DI without any distortion. This circuit can serve as input or output port for GPS and encryption, promoting the radio functions to be further expanded.

3.2 RF Driver and Final-stage PA Circuit

TX-RF signal output from Q703 in the VCO circuit is amplified at Q101, driver PA Q110 and Q109, and final-stage PA IC101. The signal passes through LPF and goes to the antenna for transmission.

3.3 APC Circuit

The circuit is used to keep output power at a constant preset value. In this circuit, D101 and D102 convert the signal from detector into DC voltage, which is then compared with the reference voltage from CPU in IC104 to output a DC voltage. The DC voltage controls gate electrode of IC101, so as to control the output power.

4. PLL Circuit

PLL circuit supplies frequency to receive the first LO signal and TX signal. The circuit consists of TX frequency oscillator (Q701), RX frequency oscillator (Q702), buffer amplifier (Q703), RF amplifier (Q102), PLL IC (IC801), LPF and TX/RX VCO switch (Q704/Q706).

In TX mode, IC502 provides the frequency data to and activates PLL IC. Meanwhile, Q704 is turned on to activate TX VCO. The output signal is amplified by Q703 and Q102. Then PLL IC divides the signal into 2.5KHz, 5KHz or 6.25KHz. And phase of it is compared with that of reference frequencies 2.5KHz , 5KHz or 6.25KHz from the 16.8MHz crystal oscillator. The crystal oscillator has operating frequency of 16.8MHz and frequency stability of 2.5ppm. The frequency control voltage output from the phase comparator passes through LPF (Q802 and Q803), and then is sent to TX VCO. In the meantime, TX modulation signal is passed to TX VCO for frequency modulation.

The working principle of RX mode is similar to that of TX mode.

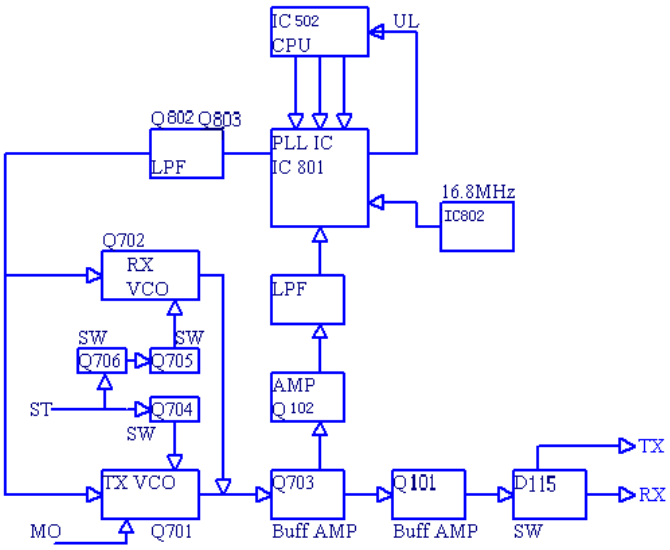


Fig. 3 PLL Circuit

5. Control Circuit

The circuit comprises CPU circuit, reset circuit and power control circuit.

5.1 CPU

IC120 (CPU) operates at 9.8304MHz, and controls EEPROM (IC501), RX circuit, TX circuit, control circuit and display circuit, as well as data transmission with peripheral equipment.

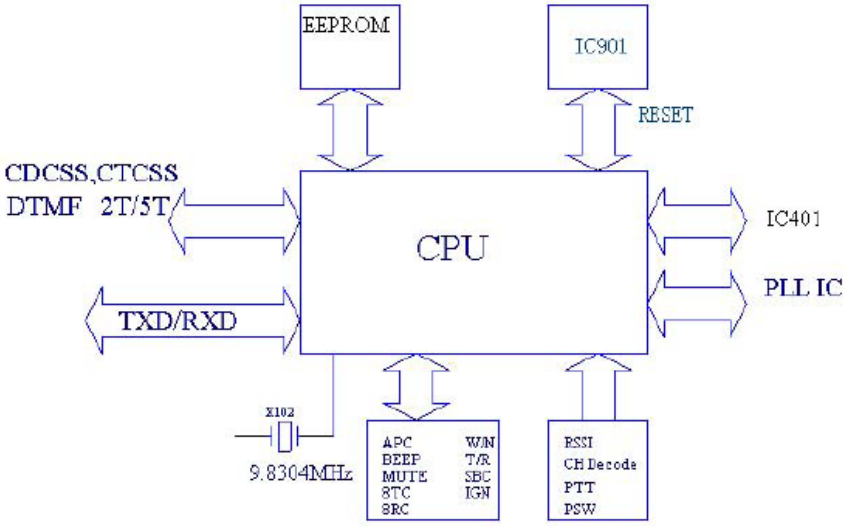


Fig. 4 Control Circuit

5.2 Reset Circuit

The reset circuit consists of a reset IC (CN813LESA) and peripheral circuits. When a breakdown occurs due to change of external voltage, the CPU would automatically reboot your radio through the reset IC (IC901).

5.3 Power Control Circuit

Power supply of the radio is derived from +B. D515 and D516 are diodes for over-voltage protection. The power can be switched on or off via software (see the figure below):

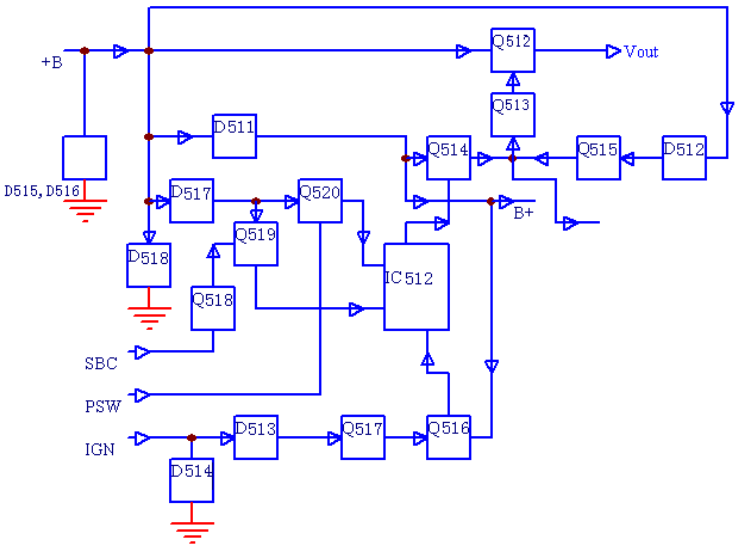


Fig. 5 Power Supply Circuit

Vout supplies power for IC601, IC602 and IC803, which generate 8V, 5V and 3.3V voltage respectively to supply the whole circuit.

6. Display Circuit

Display circuit comprises CPU (IC502), LCD, LED and other components. Application can be operated manually through programmable keys **P1**-**P4** as well as ▲ and ▼. Channel information is displayed on the 14-segment display.

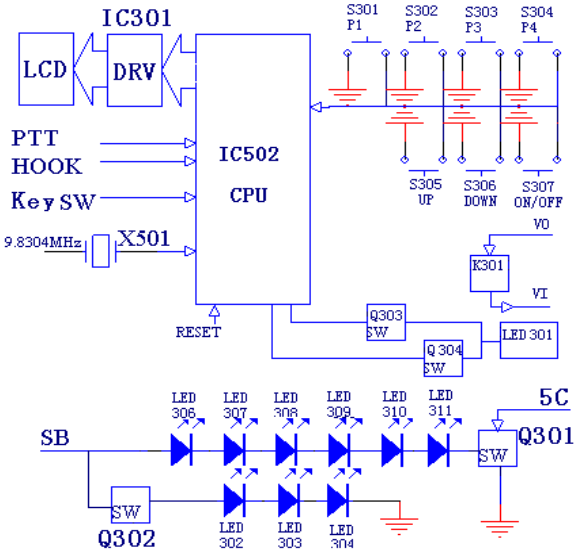


Fig. 6 Display Circuit

Semiconductor Data

1. Positive voltage regulator: TA7805F (Power Unit IC602), TA7808S (Power Unit IC601)

2. EEPROM: CAT24C256WI 256K CATALYST (CPU Unit IC501)

Pin Function

Pin No.	Name	I/O	Function
1~3	A0~A2	I	Address input
4	GND		Ground
5	SDA	I/O	Serial data input/output
6	SCL	I	Serial clock input
7	Write Protect		Write protect
8	VCC		+5V

3. Audio processor: AK2346 (AFPwr Unit IC404)

Pin No.	Name	I/O	Function
1	AGNDIN	I	Analog ground input
2	AGND	O	Analog ground output
3	TXIN	I	TX audio signal input
4	TXINO	O	TXA1 feedback output
5	LIMLV	I	Limit level tuning
6	EXTLIMIN	I	External signal input for pre-limiter
7	MOD	O	Modulated TX signal output
8	VSS		Ground
9	TCLK	O	Clock output pin for MSK transmission data
10	TDATA	I	MSK transmission data input Data are latched synchronizing with the TCLK rising edge.
11	DI/O	I/O	Serial data input and output Input for register setting data and output for MSK receiving data
12	RDF/FC	O	Rx flag, frame detection signal output pin
13	SCLK	I	Clock input
14	DIR	I	Serial data input
15	XOUT	I	Crystal oscillator input pin
16	XIN	I/O	Crystal oscillator input/output pin
17	VDD		Positive power supply pin
18	EXPOUT	O	Signal output (after audio processing)
19	RXAFIN	I	RX audio input pin
20	RXAF	O	RX audio output pin
21	RXLPFO	O	Rx LPF output pin
22	RXINO	O	RXA1 feedback output pin
23	RXIN	I	Demodulated signal input pin
24	TEST	I	Test register control input pin

4. Audio Power Amplifier: TDA7297D (AFPwr Unit IC511)

Pin No.	Name	I/O	Function
1	PW GND		Power ground 1
2	OUT1+	O	Output 1+
3	N.C		
4	N.C		.
5	OUT1-	O	Output 1-
6	VCC	I	Supply voltage
7	IN1	I	Input 1
8	MUT	I	Operating Switch
9	STAND-BY	I	Operating Switch
10	PW GND		Power ground 2
11	PW GND		Power ground 3
12	N.C		
13	SGND		Signal ground
14	IN2	I	Input 2
15	VCC	I	Supply voltage
16	OUT2-	O	Output 2-
17	N.C		.
18	N.C		
19	OUT2+	O	Output 2+
20	PW GND		Power ground

5. LCD driver: PCF8576DH (Display Unit IC501)

Pin No.	Name	I/O	Function
1	NC		
2~7	S34~S39	O	LCD output
8~9	NC		
10	SDA	I/O	I^2C bus serial data input/output
11	SCL	O	I^2C bus clock output
12	NC		
13	NC		
14	V_{DD}		Power Supply
15	OSC	I	Internal quartz crystal oscillator enable input
16~18	A0~A2	I	Address line
19	SA0	I	I^2C bus slave address (bit 0)
20	Vss		Ground
21	V_{LCD}		5C power supply
22~24	NC		
25~28	BP0~BP3	O	LCD bottom board output
29~32	S0~S4	O	LCD output
33	NC		
34~47	S5~S18	O	LCD output
48	NC		

49, 50	S19, S20	O	LCD output
51~64	S21~S34	O	LCD output

6. Amplifier: TA75W558FU (AFPr Unit IC404), TC75W51FU (AFPr Unit IC402, AFPr Unit IC405, AFPr Unit IC403), TA75S01F (RF Unit IC1037), TA75W01FU (RF Unit IC404).
7. IF detector: BA4116FV (RF Unit IC102).
8. Dual D-type trigger: TC4013BF (AFPwr Unit IC512).
9. RF PLL frequency synthesizer: MB15A02 (PLL Unit IC801).
10. Reset IC: CN813LESA (Reset Unit IC901)
11. CPU: SCM M3062LFGPGP (CPU Unit IC502)

Pin No.	Port	Name	I/O	Function
1	P94/DA1	APC	O	Modulation sensitivity output
2	P93/DA0	DTMF	O	DTMF/2-Tone/5-Tone/BEEP output
3	P92/TB2in	2TN/5TN	I	2-Tone/5-Tone decoded pulse input
4	P91	AFDIO	I/O	AK2346 data input/output
5	P90	AFSCLK	O	AK2346 Clock output
6	BYTE	BYTE	I	+5V (5C)
7	CNVSS	CNVSS	I	Ground (via 0 resistance)
8	P87	PA	O	MIC PA switch control H: PA
9	P86	HMBL	O	Palm MIC backlight control
10	RESET	RESET	I	Reset
11	XOUT	XOUT	O	Clock output
12	VSS	VSS	I	Ground
13	XIN	XIN	I	Clock input
14	VCC	VCC	I	+5V
15	P85/NMI	NMI	I	NMI
16	P84/INT2	AFRDF	I	MSK RX detect for baseband chip
17	P83/INT1	DTMFSTD		Not used (left open)
18	P82/INT0	AUX1	I/O	AUX 1
19	P81/TA4in	SBC		Power switch control H: Off L: On
20	P80/TA4out	CTC_OUT	O	CDCSS balance output
21	P77/TA3in	SPMUTE	O	SP Mute control H: Mute
22	P76/TA3out	CTC_PLL	O	CTCSS/CDCSS modulation output
23	P75/TA2in	EMICC	O	External MIC control H: External MIC
24	P74/TA2out	AFTDATA	O	MSK serial data output of baseband chip
25	P73/TA1in	AFTCLK	I	MSK clock input of baseband chip
26	P72/TA1out	AFDIR	O	Baseband chip control
27	P71/RXD2	RXD2		Not used

28	P70/TXD2	TXD2		Not used
29	P67/TXD1	TXD1	O	Serial data output L: PTT On
30	P66/RXD1	RXD1	I	Palm MIC HOOK input/serial data input L: On
31	P65	AUX4	I/O	AUX 4
32	P64	AUX5	I/O	AUX 5
33	P63	TXD2	O	Acc comm0 (serial data output)
34	P62	RXD2	I	Acc comm0 (serial data input)
35	P61	MICDAT	O	Palm MIC key code output
36	P60	AUX2	I/O	AUX 2
37	P57	RDY	I	Pulled Up
38	P56	NC		Not used (left open)
39	P55	HOLD		Not used (left open) (used for downloading)
40	P54	NC		Not used (left open)
41	P53	NC		Not used (left open)
42	P52	RD	O	External expansion for reading signal (not used)
43	P51	NC		Not used (left open)
44	P50	WR	O	External expansion for writing signal (not used)
45	P47	HNC	O	Horn alert control H: On (not used)
46	P46	SHIFT	O	Clock frequency shift H: On
47	P45	W/N	O	Wideband/Narrowband switch H: Wideband
48	P44	CS0		Not used (left open)
49	P43	MicMute	O	MIC Mute H: Mute
50	P42	KEYBL	O	Keypad backlight control
51	P41	UP/LED4	O	UP/LED4
52	P40	LED6	O	LED6
53	P37	LCDCI/LED3	I/O	LCD Driver CI PIN/LED3
54	P36	DOWN/LED5	O	DOWN/LED5
55	P35	LCDCL/LED2	O	LCD Driver CL PIN/LED2
56	P34	LCDBL/LED0	O	LCD Driver BL PIN/LED0
57	P33	LED7	O	LED7
58	P32	LCDCE/LED1	O	LCD Driver CE PIN/LED1
59	P31	RLED	O	Red indicator
60	VCC	VCC	I	+5V
61	P30	GLED	O	Green indicator
62	VSS	VSS	I	Ground
63~66	A7~A4	A7~A4		Not used (left open)
67	P23	PLLDAT	O	PLL data output
68	P22	PLLCLK	O	PLL clock output
69	P21	SLED	O	Scan status indicator
70	P20	PLED	O	High/Low power indicator
71	P17	8RC	O	8R power supply control H: RX
72	P16	8TC	O	8T power supply control H: TX

73	P15	RX	O	TX/RX VCO switch L: RX
74	P14	EEPDAT	I/O	EEPROM data input/output
75	P13	EEPCLK	O	EEPROM clock output
76	P12	PLLUL	I	PLL unlock detect L: Unlock
77	P11	PLLSTB	O	PLL strobe output L: Lock
78	P10	AFMUTE	O	RX audio mute H: Mute
79	P07	/IGN	I	Ignition sensor input H: Off L: On
80	P06	PWR	I	Power On/Off key L: On
81	P05	TYPE	I	selection input
82	P04	NC		Not used (left open)
83	P03	P4	I	P4 key input L: On (external resistor pulled up)
84	P02	P3	I	P3 key input L: On (external resistor pulled up)
85	P01	P2	I	P2 key input L: On (external resistor pulled up)
86	P00	P1	I	P1 key input L: On (external resistor pulled up)
87	AN7			Not used (left open)
88	AN6			Not used (left open)
89	AN5			Reserved for DTMF decoding
90	AN4			Reserved for DTMF decoding
91	AN3	Temp	I	Temperature data input
92	AN2	RSSI	I	RSSI input
93	AN1	SQL	I	SQL analog input
94	AVss	AVss		Ground
95	AN0	TI	I	CTCSS/CDCSS signal input
96	VREF	VREF	I	Reference voltage input
97	AVCC	AVCC	I	+5V
98	P97/Sin4	AUX3	I/O	AUX 3
99	P96/Sout4	AUX6	I/O	AUX 6
100	P95/Clk4	APCO	O	Audio PA control

Component Description

TX-RX Unit

Ref. No.	Part Name	Type	Description
IC101	IC	Power module	Power module
IC501	IC	AT2408N12.5S	EROM
IC401	IC	AK2346	Audio processor
IC404	IC	TA75W558FU	Dual operational amplifier
IC403	IC	TC75W51FU	Dual operational amplifier
IC803	IC	XC62FP3302P	Positive voltage regulator
IC602	IC	TA7805F	Positive voltage regulator
IC103	IC	TA75S01F	Single operational amplifier
IC104	IC	TA75W01FU	Dual operational amplifier
IC102	IC	TA31136FN	IF detector
IC502	IC	M30624FCPGP#U5C	CPU
IC121	IC	BU4066BCFV	Quad analog switch
IC122	IC	LC73872M	DTMF Receiver
IC125	IC	M62364FP	D/A converter with buffer amplifier
IC126	IC	TDA8561Q	Power amplifier
IC127	IC	TC4013BF	Dual D-type trigger
IC301	IC	PCF8576DH	LCD driver
IC901	IC	CN813LESA	Reset IC

Parts List 1

VHF Parts List 1 (Main Board Unit)

No.	Material No.	Description	Qty.	Ref. No.	Print No.
1	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	C177	B6C
2	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	C404	B7F
3	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R106	T4C
4	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R419	B8F
5	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R448	B8J
6	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R451	B8J
7	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R455	B7J
8	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R457	T7D
9	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R485	B7J
10	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R510	T7F
11	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R513	T8F
12	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R518	T6H
13	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R520	T6I
14	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R521	T6I
15	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R522	T6I
16	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R564	T7M
17	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R577	T7I
18	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R580	T7I
19	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R584	T7I
20	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R586	T7I
21	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R595	T8I
22	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R598	T6J
23	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R599	T6J
24	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R605	B2L
25	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R616	T7I
26	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R618	T7I
27	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R625	B7J
28	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R627	T8F
29	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R644	B9I
30	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R645	T8J
31	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R646	T9H
32	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R654	T8I
33	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R655	T7I
34	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R823	B4J
35	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R824	B4I
36	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R825	B5I
37	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R908	B7I
38	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R909	B7I
39	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R910	B7I
40	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R912	B7I
41	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R913	B8I
42	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R919	T7H
43	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R921	T7H
44	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R922	T7I
45	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R923	T7H
46	3001051010000	Chip resistor 100Ω J 1/16W 0402 (RoHS)	1	R168	B5F
47	3001051010000	Chip resistor 100Ω J 1/16W 0402 (RoHS)	1	R173	B6I

48	3001051010000	Chip resistor 100Ω J 1/16W 0402 (RoHS)	1	R174	B4E
49	3001051010000	Chip resistor 100Ω J 1/16W 0402 (RoHS)	1	R197	T5A
50	3001051010000	Chip resistor 100Ω J 1/16W 0402 (RoHS)	1	R501	T8F
51	3001051010000	Chip resistor 100Ω J 1/16W 0402 (RoHS)	1	R649	B8I
52	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R121	B4A
53	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R123	B4A
54	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R145	T6B
55	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R200	T5B
56	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R439	B7J
57	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R453	B7J
58	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R476	T8E
59	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R503	T8G
60	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R504	T8F
61	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R505	T7F
62	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R506	T7F
63	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R609	T6G
64	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R610	T6F
65	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R611	T6G
66	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R612	T7F
67	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R613	T8L
68	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R632	T7F
69	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R802	B5I
70	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R826	B6I
71	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R906	T6F
72	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R933	T8H
73	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R934	T8H
74	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R107	T4C
75	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R110	T4C
76	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R170	B6I
77	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R176	B5F
78	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R198	T4B
79	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R402	B7G
80	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R403	B7F
81	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R423	B7F
82	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R424	B7F
83	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R449	B8J
84	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R450	B8J
85	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R464	T6D
86	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R470	T8D
87	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R472	T8E
88	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R477	T8E
89	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R509	T7F
90	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R515	T8F
91	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R804	B5J
92	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R902	B9D
93	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R904	B9D
94	3001051040000	Chip resistor 100KΩ F 1/16W 0402 (RoHS)	1	R490	B7H
95	3001051040000	Chip resistor 100KΩ F 1/16W 0402 (RoHS)	1	R801	B6J
96	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R104	T4B
97	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R105	T4B
98	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R115	T4C
99	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R116	T4C
100	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R118	B5B

101	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R119	B4C
102	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R120	B4B
103	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R125	B5B
104	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R128	B4C
105	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R130	B5B
106	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R131	B5B
107	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R132	B5B
108	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R133	B6D
109	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R148	B5D
110	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R149	T6A
111	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R180	T2H
112	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R427	B7E
113	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R467	T8D
114	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R468	T8D
115	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R514	T6F
116	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R565	T7M
117	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R566	T7M
118	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R631	T7I
119	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R806	B5K
120	3001051050020	Chip resistor 1MΩ J 1/16W 0402 (RoHS)	1	R431	B8E
121	3001051050020	Chip resistor 1MΩ J 1/16W 0402 (RoHS)	1	R473	T8E
122	3001051050020	Chip resistor 1MΩ J 1/16W 0402 (RoHS)	1	R901	B8D
123	3001051230000	Chip resistor 12KΩ J 1/16W 0402 (RoHS)	1	R152	T6B
124	3001051230000	Chip resistor 12KΩ J 1/16W 0402 (RoHS)	1	R416	B8G
125	3001051230000	Chip resistor 12KΩ J 1/16W 0402 (RoHS)	1	R471	T8D
126	3001051240000	Chip resistor 120KΩ J 1/16W 0402 (RoHS)	1	R135	B6D
127	3001051240000	Chip resistor 120KΩ J 1/16W 0402 (RoHS)	1	R136	B6D
128	3001051240000	Chip resistor 120KΩ J 1/16W 0402 (RoHS)	1	R437	B7D
129	3001051240000	Chip resistor 120KΩ J 1/16W 0402 (RoHS)	1	R827	B6K
130	3001051520010	Chip resistor 1.5KΩ F 1/16W 0402 (RoHS)	1	R138	B6D
131	3001051520010	Chip resistor 1.5KΩ F 1/16W 0402 (RoHS)	1	R151	T6C
132	3001051530000	Chip resistor 15KΩ J 1/16W 0402 (RoHS)	1	R404	B7F
133	3001051530000	Chip resistor 15KΩ J 1/16W 0402 (RoHS)	1	R408	B7G
134	3001051530000	Chip resistor 15KΩ J 1/16W 0402 (RoHS)	1	R440	B7J
135	3001051530000	Chip resistor 15KΩ J 1/16W 0402 (RoHS)	1	R465	T6D
136	3001051530000	Chip resistor 15KΩ J 1/16W 0402 (RoHS)	1	R830	B6J
137	3001051540020	Chip resistor 150KΩ J 1/16W 0402 (RoHS)	1	R475	T8E
138	3001051540020	Chip resistor 150KΩ J 1/16W 0402 (RoHS)	1	R478	T8E
139	3001051810010	Chip resistor 180Ω J 1/16W 0402 (RoHS)	1	R141	T6D
140	3001051810010	Chip resistor 180Ω J 1/16W 0402 (RoHS)	1	R143	B5C
141	3001051810010	Chip resistor 180Ω J 1/16W 0402 (RoHS)	1	R182	T3H
142	3001051810010	Chip resistor 180Ω J 1/16W 0402 (RoHS)	1	R184	T3H
143	3001051830000	Chip resistor 18KΩ J 1/16W 0402 (RoHS)	1	R175	B4F
144	3001051830000	Chip resistor 18KΩ J 1/16W 0402 (RoHS)	1	R418	B8G
145	3001051830000	Chip resistor 18KΩ J 1/16W 0402 (RoHS)	1	R428	B7E
146	3001051830000	Chip resistor 18KΩ J 1/16W 0402 (RoHS)	1	R434	B8D
147	3001051830000	Chip resistor 18KΩ J 1/16W 0402 (RoHS)	1	R435	B8D
148	3001051840000	Chip resistor 180KΩ J 1/16W 0402 (RoHS)	1	R134	B6D
149	3001051840000	Chip resistor 180KΩ J 1/16W 0402 (RoHS)	1	R413	B7G
150	3001051840000	Chip resistor 180KΩ J 1/16W 0402 (RoHS)	1	R459	T7D
151	3001051840000	Chip resistor 180KΩ J 1/16W 0402 (RoHS)	1	R460	T7D
152	3001051840000	Chip resistor 180KΩ J 1/16W 0402 (RoHS)	1	R461	T6E
153	3001051840000	Chip resistor 180KΩ J 1/16W 0402 (RoHS)	1	R807	B5J

154	3001051840000	Chip resistor 180KΩ J 1/16W 0402 (RoHS)	1	R832	B6K
155	3001052200000	Chip resistor 22Ω J 1/16W 0402 (RoHS)	1	R803	B6J
156	3001052200000	Chip resistor 22Ω J 1/16W 0402 (RoHS)	1	R808	B4J
157	3001052210000	Chip resistor 220Ω J 1/16W 0402 (RoHS)	1	R117	T4D
158	3001052210000	Chip resistor 220Ω J 1/16W 0402 (RoHS)	1	R172	B6I
159	3001052210000	Chip resistor 220Ω J 1/16W 0402 (RoHS)	1	R412	B7F
160	3001052220000	Chip resistor 2.2KΩ J 1/16W 0402 (RoHS)	1	R604	B2L
161	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R158	T7C
162	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R159	T7B
163	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R161	T7B
164	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R162	T7C
165	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R409	B7G
166	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R441	B7J
167	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R442	B7J
168	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R445	B8K
169	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R452	B8K
170	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R458	T7D
171	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R466	T8D
172	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R491	B8H
173	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R829	B6K
174	3001052710010	Chip resistor 270Ω J 1/16W 0402 (RoHS)	1	R204	B4B
175	3001052720000	Chip resistor 2.7KΩ J 1/16W 0402 (RoHS)	1	R407	B8F
176	3001052720000	Chip resistor 2.7KΩ J 1/16W 0402 (RoHS)	1	R818	B4I
177	3001052720000	Chip resistor 2.7KΩ J 1/16W 0402 (RoHS)	1	R935	T7H
178	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R410	B7G
179	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R462	T6D
180	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R653	T6J
181	3001059130000	Chip resistor 91KΩ F 1/16W 0402 (RoHS)	1	R443	B8K
182	3001052730000	Chip resistor 27KΩ J 1/16W 0402 (RoHS)	1	R421	B7E
183	3001053030010	Chip resistor 30KΩ J 1/16W 0402 (RoHS)	1	R154	T6B
184	3001053030010	Chip resistor 30KΩ J 1/16W 0402 (RoHS)	1	R414	B7G
185	3001053300010	Chip resistor 33Ω J 1/16W 0402 (RoHS)	1	R139	B6C
186	3001053300010	Chip resistor 33Ω J 1/16W 0402 (RoHS)	1	R167	B6I
187	3001053300010	Chip resistor 33Ω J 1/16W 0402 (RoHS)	1	R183	T3H
188	3001053310010	Chip resistor 330Ω J 1/16W 0402 (RoHS)	1	R177	B4F
189	3001053310010	Chip resistor 330Ω J 1/16W 0402 (RoHS)	1	R178	B5F
190	3001053320000	Chip resistor 3.3KΩ J 1/16W 0402 (RoHS)	1	R111	T5C
191	3001053320000	Chip resistor 3.3KΩ J 1/16W 0402 (RoHS)	1	R153	T6B
192	3001053330010	Chip resistor 33KΩ J 1/16W 0402 (RoHS)	1	R432	B8F
193	3001053330010	Chip resistor 33KΩ J 1/16W 0402 (RoHS)	1	R433	B7D
194	3001053330010	Chip resistor 33KΩ J 1/16W 0402 (RoHS)	1	R436	B7D
195	3001053330010	Chip resistor 33KΩ J 1/16W 0402 (RoHS)	1	R482	B7D
196	3001053330010	Chip resistor 33KΩ J 1/16W 0402 (RoHS)	1	R516	T6G
197	3001053330010	Chip resistor 33KΩ J 1/16W 0402 (RoHS)	1	R563	T7L
198	3001053340000	Chip resistor 330KΩ J 1/16W 0402 (RoHS)	1	R108	T4C
199	3001053340000	Chip resistor 330KΩ J 1/16W 0402 (RoHS)	1	R406	B7F
200	3001053340000	Chip resistor 330KΩ J 1/16W 0402 (RoHS)	1	R422	B8F
201	3001053920010	Chip resistor 3.9KΩ J 1/16W 0402 (RoHS)	1	R155	T7B
202	3001053940000	Chip resistor 390KΩ J 1/16W 0402 (RoHS)	1	R463	T6D
203	3001054700000	Chip resistor 47Ω J 1/16W 0402 (RoHS)	1	R127	B6C
204	3001054700000	Chip resistor 47Ω J 1/16W 0402 (RoHS)	1	R169	B5F
205	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R160	T6B
206	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R163	T7B

207	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R171	B6I
208	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R401	B7G
209	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R447	B8K
210	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R469	T8E
211	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R502	T8G
212	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R507	T7F
213	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R508	T7F
214	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R511	T8G
215	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R525	T8G
216	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R526	T8G
217	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R543	B6L
218	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R571	B6L
219	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R573	B8L
220	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R602	B4L
221	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R822	B6F
222	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R101	T4B
223	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R102	T4B
224	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R103	T4B
225	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R144	T5B
226	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R179	B5E
227	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R199	T4A
228	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R202	T4B
229	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R405	B7G
230	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R438	T7D
231	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R454	B7J
232	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R489	B7H
233	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R492	B8H
234	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R517	T6G
235	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R519	T6G
236	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R523	T6H
237	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R524	T6H
238	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R544	B6L
239	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R545	B9L
240	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R550	B7K
241	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R562	T7L
242	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R567	T7M
243	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R572	B6L
244	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R601	B4L
245	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R603	B3L
246	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R905	T6F
247	3001055130010	Chip resistor 51KΩ J 1/16W 0402 (RoHS)	1	R411	B7G
248	3001055130010	Chip resistor 51KΩ J 1/16W 0402 (RoHS)	1	R420	B7F
249	3001055600000	Chip resistor 56Ω J 1/16W 0402 (RoHS)	1	R203	B5I
250	3001055600000	Chip resistor 56Ω J 1/16W 0402 (RoHS)	1	R828	B6K
251	3001055630000	Chip resistor 56KΩ J 1/16W 0402 (RoHS)	1	R429	B8E
252	3001055630000	Chip resistor 56KΩ J 1/16W 0402 (RoHS)	1	R430	B8E
253	3001055640000	Chip resistor 560KΩ J 1/16W 0402 (RoHS)	1	R156	T6B
254	3001056820000	Chip resistor 6.8KΩ J 1/16W 0402 (RoHS)	1	R112	T5C
255	3001056820000	Chip resistor 6.8KΩ J 1/16W 0402 (RoHS)	1	R417	B8F
256	3001056830000	Chip resistor 68KΩ J 1/16W 0402 (RoHS)	1	R444	B8K
257	3001056830000	Chip resistor 68KΩ J 1/16W 0402 (RoHS)	1	R456	B7E
258	3001056830000	Chip resistor 68KΩ J 1/16W 0402 (RoHS)	1	VR101	T5B
259	3001058220000	Chip resistor 8.2KΩ J 1/16W 0402 (RoHS)	1	R474	T8E

260	3001051820010	Chip resistor 1.8KΩ F 1/16W 0402 (RoHS)	1	R129	B4B
261	3001051820010	Chip resistor 1.8KΩ F 1/16W 0402 (RoHS)	1	R150	T6C
262	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	D502	T6F
263	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	R140	B5D
264	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	R425	T8I
265	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	R481	B7D
266	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	R553	T6M
267	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	R569	T7L
268	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	R570	T6L
269	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	R575	B9L
270	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	R629	T8K
271	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	R714	B5G
272	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	R812	B4J
273	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	R815	B4J
274	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	R821	B5I
275	3001061000000	Chip resistor 10Ω J 1/10W 0603 (RoHS)	1	R546	B6M
276	3001061000000	Chip resistor 10Ω J 1/10W 0603 (RoHS)	1	R547	B6M
277	3001061000000	Chip resistor 10Ω J 1/10W 0603 (RoHS)	1	R548	B8M
278	3001061000000	Chip resistor 10Ω J 1/10W 0603 (RoHS)	1	R549	B8M
279	3001061010000	Chip resistor 100Ω J 1/10W 0603 (RoHS)	1	R703	B5G
280	3001061010000	Chip resistor 100Ω J 1/10W 0603 (RoHS)	1	R706	B4G
281	3001061020010	Chip resistor 1KΩ J 1/10W 0603 (RoHS)	1	R557	T7L
282	3001061020010	Chip resistor 1KΩ J 1/10W 0603 (RoHS)	1	R560	T7L
283	3001061020010	Chip resistor 1KΩ J 1/10W 0603 (RoHS)	1	R568	T6L
284	3001061020010	Chip resistor 1KΩ J 1/10W 0603 (RoHS)	1	R704	B5G
285	3001061020010	Chip resistor 1KΩ J 1/10W 0603 (RoHS)	1	R705	B4G
286	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R186	T2I
287	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R426	B7E
288	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R554	T6L
289	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R558	T7L
290	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R701	B6F
291	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R709	B4F
292	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R814	B4J
293	3001061040000	Chip resistor 100KΩ D 1/10W 0603 (RoHS)	1	R559	T7L
294	3001061040000	Chip resistor 100KΩ D 1/10W 0603 (RoHS)	1	R716	B6G
295	3001061040000	Chip resistor 100KΩ D 1/10W 0603 (RoHS)	1	R820	B5I
296	3001061810000	Chip resistor 180Ω J 1/10W 0603 (RoHS)	1	R142	T5C
297	3001061830010	Chip resistor 18KΩ J 1/10W 0603 (RoHS)	1	R813	B4J
298	3001062200000	Chip resistor 22Ω J 1/10W 0603 (RoHS)	1	R189	T2I
299	3001062210000	Chip resistor 220Ω J 1/10W 0603 (RoHS)	1	R707	B4F
300	3001062220000	Chip resistor 2.2KΩ J 1/10W 0603 (RoHS)	1	R109	T1H
301	3001062220000	Chip resistor 2.2KΩ J 1/10W 0603 (RoHS)	1	R185	T2I
302	3001062220000	Chip resistor 2.2KΩ J 1/10W 0603 (RoHS)	1	R188	T2I
303	3001062230000	Chip resistor 22KΩ J 1/10W 0603 (RoHS)	1	R811	B4J
304	3001062240010	Chip resistor 220KΩ J 1/10W 0603 (RoHS)	1	R713	B4G
305	3001068230010	Chip resistor 82KΩ J 1/10W 0603 (RoHS)	1	R719	B6H
306	3001063300000	Chip resistor 33Ω J 1/10W 0603 (RoHS)	1	R712	B4F
307	3001063310010	Chip resistor 330Ω J 1/10W 0603 (RoHS)	1	R715	B4F
308	3001064700000	Chip resistor 47Ω J 1/10W 0603 (RoHS)	1	R187	T3I
309	3001064720000	Chip resistor 4.7KΩ J 1/10W 0603 (RoHS)	1	R708	B4F
310	3001064720000	Chip resistor 4.7KΩ J 1/10W 0603 (RoHS)	1	R710	B5F
311	3001064720000	Chip resistor 4.7KΩ J 1/10W 0603 (RoHS)	1	R711	B5F
312	3001064720000	Chip resistor 4.7KΩ J 1/10W 0603 (RoHS)	1	R720	B4F

313	3001064730000	Chip resistor 47KΩ J 1/10W 0603 (RoHS)	1	R551	T4L
314	3001064730000	Chip resistor 47KΩ J 1/10W 0603 (RoHS)	1	R561	T6L
315	3001065620010	Chip resistor 5.6KΩ J 1/10W 0603 (RoHS)	1	R810	B4J
316	3001061520000	Chip resistor 1.5KΩ J 1/10W 0603 (RoHS)	1	R817	B4I
317	3001061520000	Chip resistor 1.5KΩ J 1/10W 0603 (RoHS)	1	R819	B4I
318	3001062020030	Chip resistor 2KΩ F 1/10W 0603 (RoHS)	1	R190	T3J
319	3001062720000	Chip resistor 2.7KΩ J 1/10W 0603 (RoHS)	1	R816	B4I
320	3001063910000	Chip resistor 390Ω J 1/10W 0603 (RoHS)	1	R702	B5F
321	3001063930010	Chip resistor 39KΩ J 1/10W 0603 (RoHS)	1	R555	T6M
322	3001064710000	Chip resistor 470Ω J 1/10W 0603 (RoHS)	1	R192	T2J
323	3001064710000	Chip resistor 470Ω J 1/10W 0603 (RoHS)	1	R556	T6L
324	3001064710000	Chip resistor 470Ω J 1/10W 0603 (RoHS)	1	R809	B4I
325	3001070000000	Chip resistor 0Ω J 1/8W 0805 (RoHS)	1	L110	B6A
326	3001072200000	Chip resistor 22Ω J 1/8W 0805 (RoHS)	1	R195	T1J
327	3001071800000	Chip resistor 18Ω J 1/8W 0805 (RoHS)	1	R191	T3J
328	3001072710000	Chip resistor 270Ω J 1/8W 0805 (RoHS)	1	R194	T2J
329	3001072710000	Chip resistor 270Ω J 1/8W 0805 (RoHS)	1	R196	T1J
330	3101050500000	Chip capacitor 5PF C 50V 0402 (RoHS)	1	C930	T2H
331	3101050500000	Chip capacitor 5PF C 50V 0402 (RoHS)	1	C931	T2I
332	3101050500000	Chip capacitor 5PF C 50V 0402 (RoHS)	1	C932	T4C
333	3001162200000	Chip resistor 22Ω J 1/2W 2010 (RoHS)	1	R193	T2I
334	3001164720000	Chip resistor 4.7KΩ J 1/2W 2010 (RoHS)	1	R552	T5M
335	3001161210000	Chip resistor 120Ω J 1/2W 2010 (RoHS)	1	R201	T3F
336	3003061040000	Thermistor 100KΩ J 0603 (RoHS)	1	TH101	B3A
337	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP501	T8H
338	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP502	T8G
339	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP503	T8F
340	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP504	T8F
341	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP505	T8G
342	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP506	T7F
343	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP508	T7F
344	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP509	T6F
345	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP510	T6F
346	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP513	T6G
347	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP514	T6H
348	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP515	T7H
349	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP516	T7H
350	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP517	T7H
351	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP518	T8H
352	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP519	T7H
353	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP521	T8G
354	3101050300000	Chip capacitor 3PF B 50V 0402 (RoHS)	1	C187	B6I
355	3101050300000	Chip capacitor 3PF B 50V 0402 (RoHS)	1	C188	B5I
356	3101050300000	Chip capacitor 3PF B 50V 0402 (RoHS)	1	C826	B6J
357	3101051800010	Chip capacitor 18PF J 50V 0402 (RoHS)	1	C119	B4C
358	3101051800010	Chip capacitor 18PF J 50V 0402 (RoHS)	1	C141	B6C
359	3101051800010	Chip capacitor 18PF J 50V 0402 (RoHS)	1	C193	B6E
360	3101051800010	Chip capacitor 18PF J 50V 0402 (RoHS)	1	C194	B6E
361	3101051800010	Chip capacitor 18PF J 50V 0402 (RoHS)	1	C197	B6E
362	3101051800010	Chip capacitor 18PF J 50V 0402 (RoHS)	1	C199	B6D
363	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C115	T5B
364	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C120	B4C
365	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C124	B4B

366	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C129	B4A
367	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C134	B5B
368	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C140	T4C
369	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C155	T7A
370	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C180	T6C
371	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C182	B6I
372	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C183	B5F
373	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C184	B6I
374	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C191	B5I
375	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C196	B5E
376	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C200	B4F
377	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C201	B5F
378	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C203	B4E
379	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C209	T2I
380	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C211	T2I
381	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C214	T2I
382	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C225	T4C
383	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C238	T4D
384	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C248	B4C
385	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C249	B6C
386	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C250	B5B
387	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C441	B7K
388	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C445	B7E
389	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C458	T9D
390	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C462	T8D
391	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C605	B4L
392	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C802	B5I
393	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C805	B5J
394	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C806	B5J
395	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C807	B6J
396	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C809	B5K
397	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C810	B5J
398	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C820	B4J
399	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C821	B4I
400	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C822	B5I
401	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C916	T8H
402	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C917	T7I
403	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C918	B7H
404	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C919	B7H
405	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C920	B7H
406	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C921	B7I
407	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C922	T7H
408	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C923	B7I
409	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C924	B7I
410	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C925	T8H
411	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C926	B7H
412	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C929	B7H
413	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C143	B6C
414	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C148	T5D
415	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C163	T6B
416	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C239	T4C
417	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C240	T4D
418	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C242	T5B

419	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C243	T6B
420	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C401	B7G
421	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C456	T6D
422	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C461	T8E
423	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C465	T8E
424	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C506	T6H
425	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C554	B9J
426	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C566	T8J
427	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C604	B6M
428	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C606	B2L
429	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C903	B8E
430	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C905	B8D
431	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C135	B4B
432	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C145	B6D
433	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C154	B5D
434	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C165	T6B
435	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C167	T6B
436	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C168	T7B
437	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C169	T7C
438	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C174	T6B
439	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C175	T5A
440	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C176	T5B
441	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C179	T6C
442	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C202	B4E
443	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C403	B7F
444	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C405	B8F
445	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C406	B7G
446	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C407	B7F
447	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C430	B8E
448	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C431	T8D
449	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C440	B7K
450	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C453	T7D
451	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C463	T8E
452	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C466	B8E
453	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C504	T6F
454	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C505	T6H
455	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C507	T7H
456	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C511	B6L
457	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C525	T7M
458	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C537	B8L
459	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C602	B5L
460	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C801	B6I
461	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C803	B6J
462	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C911	B8D
463	3101051050000	Chip capacitor 3PT 1UF K 6.3V 0402 (RoHS)	1	C437	T8J
464	3101051050000	Chip capacitor 3PT 1UF K 6.3V 0402 (RoHS)	1	C438	B8K
465	3101051050000	Chip capacitor 3PT 1UF K 6.3V 0402 (RoHS)	1	C444	B7J
466	3101051050000	Chip capacitor 3PT 1UF K 6.3V 0402 (RoHS)	1	C449	B7D
467	3101051050000	Chip capacitor 3PT 1UF K 6.3V 0402 (RoHS)	1	C450	B7D
468	3101051050000	Chip capacitor 3PT 1UF K 6.3V 0402 (RoHS)	1	C467	B7D
469	3101051050000	Chip capacitor 3PT 1UF K 6.3V 0402 (RoHS)	1	C468	B7J
470	3101051050000	Chip capacitor 3PT 1UF K 6.3V 0402 (RoHS)	1	C470	B7H
471	3101051050000	Chip capacitor 3PT 1UF K 6.3V 0402 (RoHS)	1	C569	T7I

472	3101051050000	Chip capacitor 3PT 1UF K 6.3V 0402 (RoHS)	1	C609	T8K
473	3101051050000	Chip capacitor 3PT 1UF K 6.3V 0402 (RoHS)	1	C927	T7H
474	3101051050000	Chip capacitor 3PT 1UF K 6.3V 0402 (RoHS)	1	C928	T7I
475	3101053000010	Chip capacitor 30PF J 50V 0402 (RoHS)	1	C162	T7A
476	3101051230000	Chip capacitor 0.012UF K 25V 0402 (RoHS)	1	C454	T7D
477	3101051500020	Chip capacitor 15PF J 50V 0402 (RoHS)	1	C125	B6B
478	3101051500020	Chip capacitor 15PF J 50V 0402 (RoHS)	1	C139	B6B
479	3101051500020	Chip capacitor 15PF J 50V 0402 (RoHS)	1	C150	T5C
480	3101051500020	Chip capacitor 15PF J 50V 0402 (RoHS)	1	C159	B4C
481	3101051500020	Chip capacitor 15PF J 50V 0402 (RoHS)	1	C185	B6I
482	3101051500020	Chip capacitor 15PF J 50V 0402 (RoHS)	1	C186	B6I
483	3101051500020	Chip capacitor 15PF J 50V 0402 (RoHS)	1	C190	B5I
484	3101051500020	Chip capacitor 15PF J 50V 0402 (RoHS)	1	C192	B6C
485	3101051500020	Chip capacitor 15PF J 50V 0402 (RoHS)	1	C501	T7F
486	3101051510000	Chip capacitor 150PF J 50V 0402 (RoHS)	1	C425	B8E
487	3101051520000	Chip capacitor 1500PF K 50V 0402 (RoHS)	1	C413	B8G
488	3101051530010	Chip capacitor 0.015UF K 16V 0402 (RoHS)	1	C410	B7G
489	3101051530010	Chip capacitor 0.015UF K 16V 0402 (RoHS)	1	C824	B6K
490	3101051810010	Chip capacitor 180p J 50V 0402 (RoHS)	1	C451	T6D
491	3101051830000	Chip capacitor 0.018UF K 16V 0402 (RoHS)	1	C409	B7G
492	3101051830000	Chip capacitor 0.018UF K 16V 0402 (RoHS)	1	C823	B6K
493	3101052200010	Chip capacitor 22PF J 50V 0402 (RoHS)	1	C131	B6A
494	3101052200010	Chip capacitor 22PF J 50V 0402 (RoHS)	1	C157	T6A
495	3101052200010	Chip capacitor 22PF J 50V 0402 (RoHS)	1	C427	B8E
496	3101052200010	Chip capacitor 22PF J 50V 0402 (RoHS)	1	C428	B8E
497	3101052220010	Chip capacitor 2200pF K 50V 0402 (RoHS)	1	C455	T7D
498	3101052700000	Chip capacitor 27PF J 50V 0402 (RoHS)	1	C121	B4C
499	3101052700000	Chip capacitor 27PF J 50V 0402 (RoHS)	1	C127	B4C
500	3101052700000	Chip capacitor 27PF J 50V 0402 (RoHS)	1	C189	B6I
501	3101052700000	Chip capacitor 27PF J 50V 0402 (RoHS)	1	C502	T7F
502	3101052700000	Chip capacitor 27PF J 50V 0402 (RoHS)	1	C503	T7F
503	3101052720000	Chip capacitor 2700PF K 50V 0402 (RoHS)	1	C460	T8D
504	3101052730000	Chip capacitor 0.027UF K 16V 0402 (RoHS)	1	C426	B8E
505	3101053300000	Chip capacitor 33PF J 50V 0402 (RoHS)	1	C132	B5A
506	3101053300000	Chip capacitor 33PF J 50V 0402 (RoHS)	1	C153	T5B
507	3101053300000	Chip capacitor 33PF J 50V 0402 (RoHS)	1	C166	B6C
508	3101053300000	Chip capacitor 33PF J 50V 0402 (RoHS)	1	C415	B8F
509	3101053300000	Chip capacitor 33PF J 50V 0402 (RoHS)	1	C423	B7E
510	3101053300000	Chip capacitor 33PF J 50V 0402 (RoHS)	1	C908	B8D
511	3101053310030	Chip capacitor 330PF J 50V 0402 (RoHS)	1	C439	B7J
512	3101053310030	Chip capacitor 330PF J 50V 0402 (RoHS)	1	C471	B8H
513	3101054700010	Chip capacitor 47PF J 50V 0402 (RoHS)	1	C433	B8J
514	3101054700010	Chip capacitor 47PF J 50V 0402 (RoHS)	1	C447	B7D
515	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C100	B5B
516	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C144	B6D
517	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C147	B5C
518	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C172	T6B
519	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C432	B8J
520	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C442	B7J
521	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C443	B7J
522	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C555	B9H
523	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C556	B9H
524	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C557	B9I

525	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C558	B9I
526	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C559	B9I
527	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C560	B9I
528	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C561	B9I
529	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C562	B9I
530	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C817	B6F
531	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C818	B6F
532	3101050800000	Chip capacitor 8PF B 50V 0402 (RoHS)	1	C146	B6D
533	3101054720000	Chip capacitor 4700PF K 50V 0402 (RoHS)	1	C402	B7G
534	3101054730030	Chip capacitor 0.047UF Z 16V 0402 (RoHS)	1	C224	T4C
535	3101054740020	Chip capacitor 0.47uF K 10V 0402 (RoHS)	1	C420	B7F
536	3101054740020	Chip capacitor 0.47uF K 10V 0402 (RoHS)	1	C422	B7E
537	3101054740020	Chip capacitor 0.47uF K 10V 0402 (RoHS)	1	C912	T6E
538	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C170	T6B
539	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C171	T6B
540	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C421	B7E
541	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C543	T8F
542	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C544	T8F
543	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C545	T8G
544	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C548	T6G
545	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C549	T6G
546	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C550	T9G
547	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C551	B8G
548	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C552	T9G
549	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C910	B9D
550	3101056830040	Chip capacitor 0.068uF K 16V 0402 (RoHS)	1	C452	T6D
551	3101051040060	Chip capacitor 0.1UF K 16V 0402 (RoHS)	1	C126	B5C
552	3101056840010	Chip capacitor 0.68UF Z 10V 0402 (RoHS)	1	C419	B7J
553	3101058200000	Chip capacitor 82PF J 50V 0402 (RoHS)	1	C178	T5B
554	3101052490020	Chip capacitor 2.4PF C 50V 0402 (RoHS)	1	C149	T6D
555	3101050400010	Chip capacitor 4PF B 50V 0402 (RoHS)	1	C198	B6E
556	3101060100010	Chip capacitor 1PF B 50V 0603 (RoHS)	1	C709	B5G
557	3101060100010	Chip capacitor 1PF B 50V 0603 (RoHS)	1	C717	B4G
558	3101061590010	Chip capacitor 1.5PF B 50V 0603 (RoHS)	1	C705	B6G
559	3101060390000	Chip capacitor 0.3PF B 50V 0603 (RoHS)	1	C109	T4B
560	3101060390000	Chip capacitor 0.3PF B 50V 0603 (RoHS)	1	C110	T4B
561	3101060500010	Chip capacitor 5PF B 50V 0603 (RoHS)	1	C703	B6G
562	3101060500010	Chip capacitor 5PF B 50V 0603 (RoHS)	1	C813	B4J
563	3101060590010	Chip capacitor 0.5PF B 50V 0603 (RoHS)	1	C111	T4B
564	3101060590010	Chip capacitor 0.5PF B 50V 0603 (RoHS)	1	C112	T4B
565	3101060600010	Chip capacitor 6PF B 50V 0603 (RoHS)	1	C213	T3J
566	3101062240000	Chip capacitor 0.22UF K 10V 0603 (RoHS)	1	C237	T4C
567	3101062240000	Chip capacitor 0.22UF K 10V 0603 (RoHS)	1	C522	T7L
568	3101063900000	Chip capacitor 39PF J 50V 0603 (RoHS)	1	C212	T3I
569	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C113	T4B
570	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C114	T4B
571	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C118	B4C
572	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C205	T3H
573	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C207	T3I
574	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C208	T2H
575	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C210	T3I
576	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C215	T3J
577	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C216	T2J

578	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C217	T2I
579	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C220	T2J
580	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C223	T1I
581	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C226	T3G
582	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C232	T1G
583	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C236	B3A
584	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C526	T2L
585	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C529	T4L
586	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C532	T4L
587	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C701	B5H
588	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C708	B5F
589	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C716	B4G
590	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C718	B4F
591	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C719	B4F
592	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C720	B4F
593	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C721	B4F
594	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C723	B4F
595	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C726	B5G
596	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C812	B4I
597	3101061030010	Chip capacitor 0.01UF K 25V 0603 (RoHS)	1	C152	T5C
598	3101061030010	Chip capacitor 0.01UF K 25V 0603 (RoHS)	1	C227	T3G
599	3101061030010	Chip capacitor 0.01UF K 25V 0603 (RoHS)	1	C228	T3F
600	3101061030010	Chip capacitor 0.01UF K 25V 0603 (RoHS)	1	C512	B6L
601	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C222	T1H
602	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C235	T1G
603	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C518	B8M
604	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C519	B8M
605	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C520	B6M
606	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C521	B6M
607	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C528	T7L
608	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C536	T5L
609	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C540	T6L
610	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C541	T6L
611	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C711	B4H
612	3101061050000	Chip capacitor 1UF Z 25V 0603 (RoHS)	1	C408	B7G
613	3101061050000	Chip capacitor 1UF Z 25V 0603 (RoHS)	1	C414	B8F
614	3101061050000	Chip capacitor 1UF Z 25V 0603 (RoHS)	1	C434	B8K
615	3101061050000	Chip capacitor 1UF Z 25V 0603 (RoHS)	1	C513	B6L
616	3101061050000	Chip capacitor 1UF Z 25V 0603 (RoHS)	1	C514	B8L
617	3101061050020	Chip capacitor 1UF K 25V 0603 (RoHS)	1	C412	B8G
618	3101061500010	Chip capacitor 15PF J 50V 0603 (RoHS)	1	C204	B5E
619	3101061500010	Chip capacitor 15PF J 50V 0603 (RoHS)	1	C219	T2J
620	3101061500010	Chip capacitor 15PF J 50V 0603 (RoHS)	1	C714	B4G
621	3101061500010	Chip capacitor 15PF J 50V 0603 (RoHS)	1	C722	B4F
622	3101062210000	Chip capacitor 220PF J 50V 0603 (RoHS)	1	C702	B6H
623	3101062210000	Chip capacitor 220PF J 50V 0603 (RoHS)	1	C704	B6G
624	3101062220010	Chip capacitor 2200PF K 50V 0603 (RoHS)	1	C416	B7F
625	3101062700010	Chip capacitor 27PF J 50V 0603 (RoHS)	1	C206	T3H
626	3101062700010	Chip capacitor 27PF J 50V 0603 (RoHS)	1	C218	T2J
627	3101064700000	Chip capacitor 47PF J 50V 0603 (RoHS)	1	C712	B4H
628	3101064700000	Chip capacitor 47PF J 50V 0603 (RoHS)	1	C725	B6H
629	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C530	T4L
630	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C531	T4L

631	3104084750040	Tantalum capacitor 1206 4.7uF K 16V (RoHS)	1	C524	T8N
632	3104084750040	Tantalum capacitor 1206 4.7uF K 16V (RoHS)	1	C601	B5L
633	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C142	T5A
634	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C246	T5D
635	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C247	B6C
636	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C411	B8G
637	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C424	B8E
638	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C448	B8D
639	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C457	T6D
640	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C464	T8E
641	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C469	B8H
642	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C567	T8J
643	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C603	B6M
644	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C804	B6J
645	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C811	B5J
646	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C825	B6K
647	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C828	B4J
648	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C830	B6J
649	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C904	B8D
650	3104081060120	Tantalum capacitor 10UF M 16V (RoHS)	1	C523	T7L
651	3104081060120	Tantalum capacitor 10UF M 16V (RoHS)	1	C553	B8J
652	3104081060120	Tantalum capacitor 10UF M 16V (RoHS)	1	C724	B6G
653	3104081060120	Tantalum capacitor 10UF M 16V (RoHS)	1	C819	B6F
654	3104071060080	Tantalum capacitor 10UF M 6.3V (RoHS)	1	C164	T6A
655	3104071560040	Tantalum capacitor 15UF M 6.3V (RoHS)	1	C429	B8E
656	3104071040010	Tantalum capacitor 0.1UF M 20V (RoHS)	1	C814	B4I
657	3104081040020	Tantalum capacitor 0.1UF M 35V (RoHS)	1	C816	B4I
658	3104071050070	Tantalum capacitor 1UF M 16V (RoHS)	1	C241	T4D
659	3104071050070	Tantalum capacitor 1UF M 16V (RoHS)	1	C417	B7F
660	3104071050070	Tantalum capacitor 1UF M 16V (RoHS)	1	C418	B7E
661	3104071050070	Tantalum capacitor 1UF M 16V (RoHS)	1	C517	B7K
662	3104071050070	Tantalum capacitor 1UF M 16V (RoHS)	1	C608	B3M
663	3104071050070	Tantalum capacitor 1UF M 16V (RoHS)	1	C906	B8C
664	3104071050070	Tantalum capacitor 1UF M 16V (RoHS)	1	C907	B8C
665	3104081050090	Tantalum capacitor 1UF M 16V (RoHS)	1	C221	T1H
666	3101081020010	Chip capacitor 1000pF K 630V 1206 (RoHS)	1	C108	B2C
667	3101081020010	Chip capacitor 1000pF K 630V 1206 (RoHS)	1	C229	T3F
668	3101081500010	Chip capacitor 15pF J 500V 1206 (RoHS)	1	C101	B1B
669	3101081500010	Chip capacitor 15pF J 500V 1206 (RoHS)	1	C103	B2A
670	3101081500010	Chip capacitor 15pF J 500V 1206 (RoHS)	1	C105	B2B
671	3101081500010	Chip capacitor 15pF J 500V 1206 (RoHS)	1	C117	T3E
672	3101082200010	Chip capacitor 22pF J 500V 1206 (RoHS)	1	C116	T2D
673	3101082700010	Chip capacitor 27pF J 500V 1206 (RoHS)	1	C230	T2E
674	3101080600010	Chip capacitor 6pF D 500V 1206 (RoHS)	1	C102	B2B
675	3101081800010	Chip capacitor 18pF J 500V 1206 (RoHS)	1	C231	T1E
676	3101080500010	Chip capacitor 5pF C 500V 1206 (RoHS)	1	C104	B3B
677	3101080700010	Chip capacitor 7pF D 500V 1206 (RoHS)	1	C107	B3C
678	3102992000000	Trimmer capacitor 6pF ±2.5pF 55V (RoHS)	1	TC701	B6G
679	3102992000000	Trimmer capacitor 6pF ±2.5pF 55V (RoHS)	1	TC702	B5G
680	3104083350050	Tantalum capacitor 3.3UF M 16V (RoHS)	1	C607	B2L
681	3104083350050	Tantalum capacitor 3.3UF M 16V (RoHS)	1	C815	B4I
682	3104086850040	Tantalum capacitor 6.8UF M 10V (RoHS)	1	C181	T6C
683	3210306101000	Multi-layer chip inductor 100nH J 300mA (RoHS)	1	L112	B6D

684	3210306101000	Multi-layer chip inductor 100nH J 300mA (RoHS)	1	L119	B6I
685	3210306390000	Multi-layer chip inductor 39nH J 300mA (RoHS)	1	L115	B4D
686	3210306390000	Multi-layer chip inductor 39nH J 300mA (RoHS)	1	L120	B6I
687	3210306390000	Multi-layer chip inductor 39nH J 300mA (RoHS)	1	L121	B5I
688	3210306390000	Multi-layer chip inductor 39nH J 300mA (RoHS)	1	L138	B6D
689	3210306560000	Multi-layer chip inductor 56nH J 300mA (RoHS)	1	L125	T3H
690	3210306560000	Multi-layer chip inductor 56nH J 300mA (RoHS)	1	L126	T3H
691	3210306561010	Multi-layer chip inductor 560nH K 35mA (RoHS)	1	L114	B5D
692	3210306820000	Multi-layer chip inductor82nH J 300mA (RoHS)	1	L122	B4E
693	3213212103000	Wound chip inductor 10uH J 155mA 3.5Ω (RoHS)	1	L134	T6C
694	3213212272000	Wound chip inductor 2.7uH J 195mA 1.7Ω (RoHS)	1	L705	B5H
695	3213212272000	Wound chip inductor 2.7uH J 195mA 1.7Ω (RoHS)	1	L706	B4H
696	3213212272000	Wound chip inductor 2.7uH J 195mA 1.7Ω (RoHS)	1	L708	B4G
697	3213212272000	Wound chip inductor 2.7uH J 195mA 1.7Ω (RoHS)	1	L709	B4F
698	3213212330000	Wound chip inductor 33nH J 400mA 0.42Ω (RoHS)	1	L127	T2I
699	3213212332000	Wound chip inductor 3.3uH J 185mA 1.9Ω (RoHS)	1	L701	B5H
700	3213212332000	Wound chip inductor 3.3uH J 185mA 1.9Ω (RoHS)	1	L702	B6H
701	3213212332000	Wound chip inductor 3.3uH J 185mA 1.9Ω (RoHS)	1	L704	B5F
702	3213212561000	Wound chip inductor 0.56uH J 325mA 0.75Ω (RoHS)	1	L802	B6J
703	3213212680000	Wound chip inductor 68nH J 320mA 0.65Ω (RoHS)	1	L128	T2J
704	3221513600000	Bead 60Ω 100MHz ±25% 6000mA 1806 (RoHS)	1	L131	T1G
705	3221513600000	Bead 60Ω 100MHz ±25% 6000mA 1806 (RoHS)	1	L132	T1G
706	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L129	T1I
707	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L135	B5B
708	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L137	B6C
709	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L501	T8E
710	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L503	T6F
711	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L504	T6G
712	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L505	T6G
713	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L506	B9G
714	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L507	B8H
715	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L508	B8G
716	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L509	B9G
717	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L510	B8G
718	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L511	B9G
719	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L512	B9G
720	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L513	B8G
721	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L514	B9G
722	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L515	B8G
723	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L516	B9G
724	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L517	B8G
725	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L518	B9G
726	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L519	B8G
727	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L520	B9G
728	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L521	B8G
729	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L522	B9F
730	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L523	B8F
731	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L524	B9F
732	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L525	B8F
733	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L526	B9F
734	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L527	B8F
735	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L528	B9F
736	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L529	B8F

737	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L530	B9F
738	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L531	B8F
739	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L532	B9F
740	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L533	B8F
741	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L534	B9H
742	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L535	B9J
743	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L801	B6J
744	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L803	B4K
745	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	R157	T6A
746	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	R831	B4I
747	3231803011000	Air core inductor 0.8*3.0*11TR (RoHS)	1	L101	B1C
748	3231803050000	Air core inductor 0.8*3.0*5TR (RoHS)	1	L102	B2B
749	3231803050000	Air core inductor 0.8*3.0*5TR (RoHS)	1	L103	B3B
750	3231803050000	Air core inductor 0.8*3.0*5TR (RoHS)	1	L104	B3C
751	3231803050000	Air core inductor 0.8*3.0*5TR (RoHS)	1	L105	T2D
752	3231803050000	Air core inductor 0.8*3.0*5TR (RoHS)	1	L130	T1D
753	3231803060000	Air core inductor 0.8*3.0*6TR (RoHS)	1	L133	T3E
754	3234599350000	Chip air core coil 35nH (RoHS)	1	L703	B5H
755	3234599350000	Chip air core coil 35nH (RoHS)	1	L707	B4G
756	3302030500000	Zener diode 10V (RoHS)	1	D514	T7L
757	3302030500010	Zener diode 15V (RoHS)	1	D518	T6L
758	3302030500020	Zener diode 18V (RoHS)	1	D512	T6L
759	3302030500030	Zener diode 5.1V (RoHS)	1	D112	B5C
760	3302030500030	Zener diode 5.1V (RoHS)	1	D118	T1H
761	3302180100000	Zener Diode 5V (RoHS)	1	D802	B4J
762	3303010500040	Switching Diode 80V 100mA 1.2V/100mA (RoHS)	1	D103	T4B
763	3303010500040	Switching Diode 80V 100mA 1.2V/100mA (RoHS)	1	D116	T2H
764	3303010500040	Switching Diode 80V 100mA 1.2V/100mA (RoHS)	1	D511	T7L
765	3303010500040	Switching Diode 80V 100mA 1.2V/100mA (RoHS)	1	D513	T7L
766	3303010500040	Switching Diode 80V 100mA 1.2V/100mA (RoHS)	1	D517	T6L
767	3303240000000	Switching diode 75V 200mA 1.25V 6ns (RoHS)	1	D501	T6F
768	3303240000000	Switching diode 75V 200mA 1.25V 6ns (RoHS)	1	D801	B6I
769	3303240000000	Switching diode 75V 200mA 1.25V 6ns (RoHS)	1	D803	B5F
770	3303030300000	Schottky Barrier Diode 40V 30mA 0.26V/1mA (RoHS)	1	D101	T4B
771	3303030300000	Schottky Barrier Diode 40V 30mA 0.26V/1mA (RoHS)	1	D102	T4B
772	3303030300000	Schottky Barrier Diode 40V 30mA 0.26V/1mA (RoHS)	1	D117	T3I
773	3303030300000	Schottky Barrier Diode 40V 30mA 0.26V/1mA (RoHS)	1	D401	T7D
774	3303030100010	Switching Diode 80V 100mA 1V/100mA (RoHS)	1	D113	T7B
775	3303030100010	Switching Diode 80V 100mA 1V/100mA (RoHS)	1	D114	T7B
776	3303030100020	Switching Diode 35V 0.8V/10mA (RoHS)	1	D115	B5E
777	3303210100000	Switching Diode 50V 1V/50mA 4ns (RoHS)	1	D104	T2E
778	3303210100000	Switching Diode 50V 1V/50mA 4ns (RoHS)	1	D105	T3D
779	3304010100160	Varactor VR:30V 15pF/2VR 2.3pF/10VR (RoHS)	1	D705	B6G
780	3304010100990	Varactor VR:34V 35pF/2VR 2.8pF/25VR (RoHS)	1	D701	B5H
781	3304010100990	Varactor VR:34V 35pF/2VR 2.8pF/25VR (RoHS)	1	D703	B5H
782	3304010100990	Varactor VR:34V 35pF/2VR 2.8pF/25VR (RoHS)	1	D706	B4H
783	3304010100990	Varactor VR:34V 35pF/2VR 2.8pF/25VR (RoHS)	1	D707	B4H
784	3304010100990	Varactor VR:34V 35pF/2VR 2.8pF/25VR (RoHS)	1	D708	B4H
785	3304010100990	Varactor VR:34V 35pF/2VR 2.8pF/25VR (RoHS)	1	D709	B4H
786	3399990000240	Zener Diode 4.7V (RoHS)	1	D119	T4B
787	3401001000490	PNP Transistor 50V 150mA 200~400 (RoHS)	1	Q802	B4J
788	3401002000140	NPN Transistor 30V 20mA 100~200 (RoHS)	1	Q113	T5B
789	3401002000150	NPN Transistor 50V 150mA 200~400 (RoHS)	1	Q803	B4J

790	3401002000290	NPN Transistor 50V 150mA 200~400 (RoHS)	1	Q404	B8J
791	3401002000290	NPN Transistor 50V 150mA 200~400 (RoHS)	1	Q704	B5F
792	3401002000290	NPN Transistor 50V 150mA 200~400 (RoHS)	1	Q705	B4F
793	3401002000290	NPN Transistor 50V 150mA 200~400 (RoHS)	1	Q801	B6F
794	3401002000990	NPN Transistor 10V 30mA 120~240 (RoHS)	1	Q101	B5F
795	3401002000990	NPN Transistor 10V 30mA 120~240 (RoHS)	1	Q102	B6I
796	3401002000990	NPN Transistor 10V 30mA 120~240 (RoHS)	1	Q703	B4G
797	3403002000000	PNP Transistor 32V 1A 82~390 (RoHS)	1	Q601	B4L
798	3403002000000	PNP Transistor 32V 1A 82~390 (RoHS)	1	Q603	B2L
799	3403003000000	NPN Transistor 50V 150mA 120~560 (RoHS)	1	Q114	T4B
800	3403003000060	NPN Transistor 50V 150mA 270~560 (RoHS)	1	Q401	B7F
801	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q105	T6C
802	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q106	T5A
803	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q504	T6J
804	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q514	T6L
805	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q516	T7L
806	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q519	T7L
807	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q520	T7L
808	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q523	B8I
809	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q402	B8F
810	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q501	T7F
811	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q503	T6H
812	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q513	T6M
813	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q515	T6L
814	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q517	T7L
815	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q518	T7L
816	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q602	B4L
817	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q604	B2L
818	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q706	B4F
819	3408002000010	NPN Transistor 12V 100mA 120 (RoHS)	1	Q109	T3J
820	3408002000010	NPN Transistor 12V 100mA 120 (RoHS)	1	Q110	T3I
821	3499000000140	N-JFET VGS:15V VGSoff:-1.4V IDSS:50mA (RoHS)	1	Q701	B5G
822	3499000000140	N-JFET VGS:15V VGSoff:-1.4V IDSS:50mA (RoHS)	1	Q702	B4G
823	3501020000030	N-MOSFET VDS:6V ID:20mA VGS(th):0.7V (RoHS)	1	Q112	B6D
824	3418001000010	NPN Transistor 10V 50mA 150 (RoHS)	1	Q111	B4A
825	3501030000000	P-MOSFET VDS:-30V ID:-10A VGS(th):-1.5V (RoHS)	1	Q512	T4L
826	3503020000030	N-MOSFET VDS:30V ID:100mA VGS(th):3.0V (RoHS)	1	Q403	B8G
827	3503020000030	N-MOSFET VDS:30V ID:100mA VGS(th):3.0V (RoHS)	1	Q405	B7J
828	3503020000030	N-MOSFET VDS:30V ID:100mA VGS(th):3.0V (RoHS)	1	Q406	B7J
829	3503020000030	N-MOSFET VDS:30V ID:100mA VGS(th):3.0V (RoHS)	1	Q502	T6G
830	3503020000030	N-MOSFET VDS:30V ID:100mA VGS(th):3.0V (RoHS)	1	Q511	B6L
831	3503020000030	N-MOSFET VDS:30V ID:100mA VGS(th):3.0V (RoHS)	1	Q521	B9L
832	3602017006350	Audio amplifier 10W+10W 6.5~18V 32dB (RoHS)	1	IC511	B7L
833	3603018000000	IF processor 10~150MHZ 1.8~5.5V (RoHS)	1	IC102	T6B
834	3605002054590	Operational amplifier 6~12V 250mW 100dB (RoHS)	1	IC104	T4C
835	3605002054790	Operational amplifier 4~18V 250mW 100dB (RoHS)	1	IC404	T6D
836	3605002057090	Operational amplifier 6~12V 200mW 100dB (RoHS)	1	IC103	T4D
837	3605002057090	Operational amplifier 6~12V 200mW 100dB (RoHS)	1	IC407	B7H
838	3605002057290	Operational amplifier 1.5~7V 200mW 70dB (RoHS)	1	IC402	B7D
839	3605002057290	Operational amplifier 1.5~7V 200mW 70dB (RoHS)	1	IC403	T8E
840	3605002057290	Operational amplifier 1.5~7V 200mW 70dB (RoHS)	1	IC405	B8K
841	3607002000180	Logic IC 3~18V (RoHS)	1	IC512	T7M
842	3608002020890	Power management IC 5V 1.0A (RoHS)	1	IC602	B5L

843	3608015005600	Power management IC 3V 250mA (RoHS)	1	IC803	B4K
844	3609007001590	IF processor 1.1GHz (RoHS)	1	IC801	B5J
845	3612022000000	Memory 256K 1.8~5.5V (RoHS)	1	IC501	T6I
846	3613034001060	Baseband processor 1.5~5.9V (RoHS)	1	IC401	B8E
847	3701016850020	TCXO 16.8MHz 3.0V ±2.0ppm (RoHS)	1	IC802	B6J
848	3701098340010	Crystal ±30ppm 20pF (RoHS)	1	X501	T7E
849	3701368630000	Crystal ±100ppm 20pF (RoHS)	1	X402	B9E
850	3802499540040	Crystal Filter ±6.0kHz (RoHS)	1	XF200	T6C
851	5205015000000	Board-to-cable connector 15Pin 1.25mm male (RoHS)	1	J503	T8L
852	5207032000000	FPC connector 32PIN 0.50mm (RoHS)	1	J501	T9G
853	3610045000200	MCU 16-bit 2.7~5.5V 20MHz (RoHS)	1	IC502	T7G
854	410M6101001A0	PCB FR4 6L 2P 188.25*153.00*1.60mm A (RoHS)	1		
855	4002000000300	Fuse 32V 0.5A 0603-FF (RoHS)	1	FP101	T8H
856	3605002057290	Operational amplifier 1.5~7V 200mW 70dB (RoHS)	1	FP102	T9H
857	3609999000330	Reset IC 4.65V SOP-8 (RoHS)	1	IC901	T6E
858	3411002000020	NPN Transistor 50V 150mA 200~400 (RoHS)	1	Q901	T6F
859	3002996830060	Trimmer resistor 68K ±25% 0.15W (RoHS)	1	VR801	T5K
860	3002996830060	Trimmer resistor 68K ±25% 0.15W (RoHS)	1	VR802	T8H
861	3103994760180	Electrolytic Capacitor 47uf M 25V (RoHS)	1	C234	T2F
862	3103994760180	Electrolytic Capacitor 47uf M 25V (RoHS)	1	C533	T5L
863	3101051010030	Chip capacitor 100PF J 50V 0402 (RoHS)	1	C128	B4A
864	3101051010030	Chip capacitor 100PF J 50V 0402 (RoHS)	1	C130	B4B
865	3101051010030	Chip capacitor 100PF J 50V 0402 (RoHS)	1	C136	B5B
866	3231301250000	Air core inductor E2-0.30*1.2*5TL (RoHS)	1	L106	B4C
867	3231301250000	Air core inductor E2-0.30*1.2*5TL (RoHS)	1	L108	B4C
868	3231301250000	Air core inductor E2-0.30*1.2*5TL (RoHS)	1	L111	B6B
869	3231301250000	Air core inductor E2-0.30*1.2*5TL (RoHS)	1	L116	B4B
870	3231301250000	Air core inductor E2-0.30*1.2*5TL (RoHS)	1	L136	B6A
871	3231301250000	Air core inductor E2-0.30*1.2*5TL (RoHS)	1	L146	B6B
872	3304060300040	Varactor VR:15V 45pF/1VR 12.5pF/4VR (RoHS)	1	D107	B5B
873	3304060300040	Varactor VR:15V 45pF/1VR 12.5pF/4VR (RoHS)	1	D108	B5C
874	3304060300040	Varactor VR:15V 45pF/1VR 12.5pF/4VR (RoHS)	1	D109	B5B
875	3304060300040	Varactor VR:15V 45pF/1VR 12.5pF/4VR (RoHS)	1	D110	B5B
876	3304060300040	Varactor VR:15V 45pF/1VR 12.5pF/4VR (RoHS)	1	D111	B5C
877	3304060300040	Varactor VR:15V 45pF/1VR 12.5pF/4VR (RoHS)	1	D120	B5C
878	3399990000260	Rectifier Diode 10V 15mA 380mV/1mA (RoHS)	1	D418	B4B
879	3101055600000	Chip capacitor 56PF J 50V 0402 (RoHS)	1	C244	B4B
880	3215107680000	Wound chip inductor 68nH G 500mA 0.38Ω (RoHS)	1	L139	B4B
881	3101051000020	Chip capacitor 10PF J 50V 0402 (RoHS)	1	C133	B6B
882	3101051000020	Chip capacitor 10PF J 50V 0402 (RoHS)	1	C137	B6B
883	3101051000020	Chip capacitor 10PF J 50V 0402 (RoHS)	1	C138	B6B
884	3101051000020	Chip capacitor 10PF J 50V 0402 (RoHS)	1	C173	T6B
885	3101051000020	Chip capacitor 10PF J 50V 0402 (RoHS)	1	C245	B6B
886	3210306150000	Multi-layer chip inductor 15nH J 350mA (RoHS)	1	L144	B6C
887	3303020100080	Switching Diode 35V 100mA 0.92V/100mA (RoHS)	1	D804	B4I
888	3303020100080	Switching Diode 35V 100mA 0.92V/100mA (RoHS)	1	D805	B4I
889	3001054320000	Chip resistor 4.3KΩ J 1/16W 0402 (RoHS)	1	R527	T8F
890	3001054320000	Chip resistor 4.3KΩ J 1/16W 0402 (RoHS)	1	R528	T8F
891	3701049550020	Crystal oscillator ±10PPM 12pF (RoHS)	1	X401	T6A
892	3101051200020	Chip capacitor 12PF J 50V 0402 (RoHS)	1	C233	B4C
893	3101052010000	Chip capacitor 200PF J 50V 0402 (RoHS)	1	C435	B8K
894	3001051510010	Chip resistor 150Ω F 1/16W 0402 (RoHS)	1	R137	B6D
895	3101061000000	Chip capacitor 10PF J 50V 0603 (RoHS)	1	C706	B5F

896	3101061000000	Chip capacitor 10PF J 50V 0603 (RoHS)	1	C707	B5G
897	3101061800000	Chip capacitor 18PF J 50V 0603 (RoHS)	1	C713	B4G
898	3101061800000	Chip capacitor 18PF J 50V 0603 (RoHS)	1	C715	B4G
899	3210406331000	Multi-layer chip inductor 330nH K 35mA (RoHS)	1	L113	B5D
900	3210106560000	Wound chip inductor 56nH G 360mA (RoHS)	1	L109	B4A
901	3001066810010	Chip resistor 680Ω J 1/10W 0603 (RoHS)	1	R181	T2I
902	1616100001430	Embedded software of HYT mobile radio (RoHS)	1		
903	3001061540000	Chip resistor 150KΩ J 1/10W 0603 (RoHS)	1	R717	B6G
904	3001052740000	Chip resistor 270KΩ J 1/16W 0402 (RoHS)	1	R446	T8K
905	3001052790000	Chip resistor 2.7Ω J 1/16W 0402 (RoHS)	1	R122	B4A
906	3101054730000	Chip capacitor 0.047UF K 10V 0402 (RoHS)	1	C436	B8K
907	3302060000000	Zener diode 27V (RoHS)	1	D516	T2M

UHF Parts List 1 (Main Board Unit)

No.	Material No.	Description	Qty.	Ref. No.	Print No.
1	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	C404	B7F
2	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R106	T4C
3	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R110	T4C
4	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R122	B4A
5	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R178	B5F
6	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R448	B8J
7	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R451	B8J
8	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R455	B7J
9	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R457	T7D
10	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R485	B7J
11	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R501	T8F
12	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R510	T7F
13	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R513	T8F
14	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R518	T6H
15	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R520	T6I
16	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R521	T6I
17	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R522	T6I
18	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R564	T7M
19	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R577	T7I
20	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R578	T7I
21	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R580	T7I
22	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R581	T7I
23	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R582	T7I
24	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R584	T7I
25	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R586	T7I
26	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R587	T8I
27	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R590	T8L
28	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R591	T8L
29	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R598	T6J
30	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R599	T6J
31	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R600	T8L
32	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R605	B2L
33	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R608	T8L
34	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R616	T7I
35	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R618	T7I
36	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R620	T8M
37	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R623	T8M
38	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R625	B7J
39	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R627	T8F
40	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R629	T8K
41	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R640	B8J
42	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R641	B9J
43	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R644	B9I
44	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R645	T8J
45	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R646	T9H
46	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R655	T7I
47	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R908	B7I
48	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R909	B7I
49	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R910	B7I

50	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R912	B7I
51	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R913	B8I
52	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R919	T7H
53	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R921	T7H
54	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R922	T7H
55	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R923	T7H
56	3001051010000	Chip resistor 100Ω J 1/16W 0402 (RoHS)	1	R174	B4E
57	3001051010000	Chip resistor 100Ω J 1/16W 0402 (RoHS)	1	R197	T5A
58	3001051010000	Chip resistor 100Ω J 1/16W 0402 (RoHS)	1	R649	B8I
59	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R145	T6B
60	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R200	T5B
61	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R419	B8F
62	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R439	B7J
63	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R453	B7J
64	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R476	T8E
65	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R503	T8G
66	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R504	T8F
67	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R505	T7F
68	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R506	T7F
69	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R609	T6G
70	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R610	T6F
71	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R611	T6G
72	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R612	T7F
73	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R613	T8L
74	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R632	T7F
75	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R802	B5I
76	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R823	B4J
77	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R824	B4I
78	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R825	B5I
79	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R826	B6I
80	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R906	T6F
81	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R933	T8H
82	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R934	T8H
83	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R112	T5C
84	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R170	B6I
85	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R176	B5F
86	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R198	T4B
87	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R402	B7G
88	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R403	B7F
89	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R423	B7F
90	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R424	B7F
91	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R449	B8J
92	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R450	B8J
93	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R464	T6D
94	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R470	T8D
95	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R472	T8E
96	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R477	T8E
97	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R509	T7F
98	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R515	T8F
99	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R804	B5J
100	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R902	B9D
101	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	R904	B9D
102	3001051030000	Chip resistor 10KΩ J 1/16W 0402 (RoHS)	1	VR101	T5B

103	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R104	T4B
104	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R107	T4C
105	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R115	T4C
106	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R116	T4C
107	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R118	B5B
108	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R119	B4C
109	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R120	B4C
110	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R125	B5B
111	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R130	B5B
112	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R131	B5B
113	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R132	B5B
114	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R133	B6D
115	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R134	B6D
116	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R135	B6D
117	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R148	B5D
118	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R149	T6A
119	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R180	T2H
120	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R427	B7E
121	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R467	T8D
122	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R468	T8D
123	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R514	T6F
124	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R565	T7M
125	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R566	T7M
126	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R631	T7I
127	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R801	B6I
128	3001051040010	Chip resistor 100KΩ J 1/16W 0402 (RoHS)	1	R806	B5J
129	3001051050020	Chip resistor 1MΩ J 1/16W 0402 (RoHS)	1	R473	T8E
130	3001051050020	Chip resistor 1MΩ J 1/16W 0402 (RoHS)	1	R901	B8D
131	3001051230000	Chip resistor 12KΩ J 1/16W 0402 (RoHS)	1	R152	T6B
132	3001051230000	Chip resistor 12KΩ J 1/16W 0402 (RoHS)	1	R416	B8G
133	3001051230000	Chip resistor 12KΩ J 1/16W 0402 (RoHS)	1	R418	B8F
134	3001051230000	Chip resistor 12KΩ J 1/16W 0402 (RoHS)	1	R471	T8D
135	3001051530000	Chip resistor 15KΩ J 1/16W 0402 (RoHS)	1	R111	T5C
136	3001051530000	Chip resistor 15KΩ J 1/16W 0402 (RoHS)	1	R404	B7F
137	3001051530000	Chip resistor 15KΩ J 1/16W 0402 (RoHS)	1	R408	B7G
138	3001051530000	Chip resistor 15KΩ J 1/16W 0402 (RoHS)	1	R428	B7E
139	3001051530000	Chip resistor 15KΩ J 1/16W 0402 (RoHS)	1	R440	B7J
140	3001051530000	Chip resistor 15KΩ J 1/16W 0402 (RoHS)	1	R465	T6D
141	3001051530000	Chip resistor 15KΩ J 1/16W 0402 (RoHS)	1	R830	B6J
142	3001051540020	Chip resistor 150KΩ J 1/16W 0402 (RoHS)	1	R136	B6D
143	3001051540020	Chip resistor 150KΩ J 1/16W 0402 (RoHS)	1	R475	T8E
144	3001051540020	Chip resistor 150KΩ J 1/16W 0402 (RoHS)	1	R478	T8E
145	3001051830000	Chip resistor 18KΩ J 1/16W 0402 (RoHS)	1	R414	B7G
146	3001051830000	Chip resistor 18KΩ J 1/16W 0402 (RoHS)	1	R432	B8F
147	3001051830000	Chip resistor 18KΩ J 1/16W 0402 (RoHS)	1	R434	B8D
148	3001051830000	Chip resistor 18KΩ J 1/16W 0402 (RoHS)	1	R435	B8D
149	3001051840000	Chip resistor 180KΩ J 1/16W 0402 (RoHS)	1	R459	T7D
150	3001051840000	Chip resistor 180KΩ J 1/16W 0402 (RoHS)	1	R460	T7D
151	3001051840000	Chip resistor 180KΩ J 1/16W 0402 (RoHS)	1	R461	T6E
152	3001051840000	Chip resistor 180KΩ J 1/16W 0402 (RoHS)	1	R807	B5J
153	3001052200000	Chip resistor 22Ω J 1/16W 0402 (RoHS)	1	R127	B6C
154	3001052200000	Chip resistor 22Ω J 1/16W 0402 (RoHS)	1	R803	B6J
155	3001052200000	Chip resistor 22Ω J 1/16W 0402 (RoHS)	1	R808	B4J

156	3001052210000	Chip resistor 220Ω J 1/16W 0402 (RoHS)	1	R117	T4D
157	3001052210000	Chip resistor 220Ω J 1/16W 0402 (RoHS)	1	R172	B6I
158	3001052210000	Chip resistor 220Ω J 1/16W 0402 (RoHS)	1	R204	B4B
159	3001052220000	Chip resistor 2.2KΩ J 1/16W 0402 (RoHS)	1	R604	B2L
160	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R101	T4B
161	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R102	T4B
162	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R158	T7C
163	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R159	T7B
164	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R161	T7B
165	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R162	T7C
166	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R409	B7G
167	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R441	B7J
168	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R442	B7J
169	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R445	B8K
170	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R452	B8K
171	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R458	T7D
172	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R466	T8D
173	3001052230010	Chip resistor 22KΩ J 1/16W 0402 (RoHS)	1	R829	B6K
174	3001052240000	Chip resistor 220KΩ J 1/16W 0402 (RoHS)	1	R105	T4B
175	3001052240000	Chip resistor 220KΩ J 1/16W 0402 (RoHS)	1	R828	B6K
176	3001052240000	Chip resistor 220KΩ J 1/16W 0402 (RoHS)	1	R832	B6K
177	3001052720000	Chip resistor 2.7KΩ J 1/16W 0402 (RoHS)	1	R129	B4B
178	3001052720000	Chip resistor 2.7KΩ J 1/16W 0402 (RoHS)	1	R138	B6D
179	3001052720000	Chip resistor 2.7KΩ J 1/16W 0402 (RoHS)	1	R407	B8F
180	3001052720000	Chip resistor 2.7KΩ J 1/16W 0402 (RoHS)	1	R935	T7H
181	3001053330010	Chip resistor 33KΩ J 1/16W 0402 (RoHS)	1	R175	B4F
182	3001053330010	Chip resistor 33KΩ J 1/16W 0402 (RoHS)	1	R433	B7D
183	3001053330010	Chip resistor 33KΩ J 1/16W 0402 (RoHS)	1	R436	B7D
184	3001053330010	Chip resistor 33KΩ J 1/16W 0402 (RoHS)	1	R516	T6G
185	3001053330010	Chip resistor 33KΩ J 1/16W 0402 (RoHS)	1	R563	T7L
186	3001053340000	Chip resistor 330KΩ J 1/16W 0402 (RoHS)	1	R108	T4C
187	3001053340000	Chip resistor 330KΩ J 1/16W 0402 (RoHS)	1	R422	B8F
188	3001053340000	Chip resistor 330KΩ J 1/16W 0402 (RoHS)	1	R446	T8K
189	3001053930000	Chip resistor 39KΩ J 1/16W 0402 (RoHS)	1	R410	B7G
190	3001053940000	Chip resistor 390KΩ J 1/16W 0402 (RoHS)	1	R431	B8E
191	3001053940000	Chip resistor 390KΩ J 1/16W 0402 (RoHS)	1	R463	T6D
192	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R160	T6B
193	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R163	T7B
194	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R171	B6I
195	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R401	B7G
196	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R447	B8K
197	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R469	T8E
198	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R502	T8G
199	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R507	T7F
200	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R508	T7F
201	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R511	T8G
202	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R543	B6L
203	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R571	B6L
204	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R573	B8L
205	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R602	B4L
206	3001054720000	Chip resistor 4.7KΩ J 1/16W 0402 (RoHS)	1	R822	B6F
207	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R103	T4B
208	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R144	T5B

209	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R179	B5E
210	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R199	T4A
211	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R202	T4B
212	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R405	B7G
213	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R438	T7D
214	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R454	B7J
215	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R489	B7H
216	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R492	B8H
217	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R517	T6G
218	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R519	T6G
219	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R523	T6H
220	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R524	T6H
221	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R544	B6L
222	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R545	B9L
223	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R550	B7K
224	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R562	T7L
225	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R567	T7M
226	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R572	B6L
227	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R601	B4L
228	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R603	B3L
229	3001054730000	Chip resistor 47KΩ J 1/16W 0402 (RoHS)	1	R905	T6F
230	3001055130010	Chip resistor 51KΩ J 1/16W 0402 (RoHS)	1	R420	B7F
231	3001055630000	Chip resistor 56KΩ J 1/16W 0402 (RoHS)	1	R413	B7G
232	3001055630000	Chip resistor 56KΩ J 1/16W 0402 (RoHS)	1	R429	B8E
233	3001055630000	Chip resistor 56KΩ J 1/16W 0402 (RoHS)	1	R430	B8E
234	3001056820000	Chip resistor 6.8KΩ J 1/16W 0402 (RoHS)	1	R417	B8F
235	3001056830000	Chip resistor 68KΩ J 1/16W 0402 (RoHS)	1	R411	B7G
236	3001056830000	Chip resistor 68KΩ J 1/16W 0402 (RoHS)	1	R444	B8J
237	3001056830000	Chip resistor 68KΩ J 1/16W 0402 (RoHS)	1	R456	B7E
238	3001056830000	Chip resistor 68KΩ J 1/16W 0402 (RoHS)	1	R482	B7D
239	3001058220000	Chip resistor 8.2KΩ J 1/16W 0402 (RoHS)	1	R474	T8E
240	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R462	T6D
241	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R653	T6J
242	3001059130000	Chip resistor 91KΩ F 1/16W 0402 (RoHS)	1	R443	B8K
243	3001060000000	Chip resistor 0Ω J 1/10W 0603 (RoHS)	1	D120	B4C
244	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	D502	T6F
245	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R140	B5D
246	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R425	T8J
247	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R481	B7D
248	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R553	T6M
249	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R569	T7L
250	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R570	T6L
251	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R575	B9L
252	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R706	B4G
253	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R809	B4I
254	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R812	B4J
255	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R815	B4J
256	3001058230000	Chip resistor 82KΩ J 1/16W 0402 (RoHS)	1	R821	B4I
257	3001061000000	Chip resistor 10Ω J 1/10W 0603 (RoHS)	1	R157	T6A
258	3001061000000	Chip resistor 10Ω J 1/10W 0603 (RoHS)	1	R546	B6M
259	3001061000000	Chip resistor 10Ω J 1/10W 0603 (RoHS)	1	R547	B6M
260	3001061000000	Chip resistor 10Ω J 1/10W 0603 (RoHS)	1	R548	B8M
261	3001061000000	Chip resistor 10Ω J 1/10W 0603 (RoHS)	1	R549	B8M

262	3001061020010	Chip resistor 1KΩ J 1/10W 0603 (RoHS)	1	R109	T1H
263	3001061020010	Chip resistor 1KΩ J 1/10W 0603 (RoHS)	1	R557	T7L
264	3001061020010	Chip resistor 1KΩ J 1/10W 0603 (RoHS)	1	R560	T7L
265	3001061020010	Chip resistor 1KΩ J 1/10W 0603 (RoHS)	1	R568	T6L
266	3001061020010	Chip resistor 1KΩ J 1/10W 0603 (RoHS)	1	R816	B4I
267	3001061020010	Chip resistor 1KΩ J 1/10W 0603 (RoHS)	1	R817	B4I
268	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R186	T2I
269	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R426	B7E
270	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R554	T6L
271	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R558	T7L
272	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R709	B4F
273	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R810	B4J
274	3001061030010	Chip resistor 10KΩ J 1/10W 0603 (RoHS)	1	R814	B4J
275	3001061040010	Chip resistor 100KΩ J 1/10W 0603 (RoHS)	1	R559	T7L
276	3001061040010	Chip resistor 100KΩ J 1/10W 0603 (RoHS)	1	R716	B6F
277	3001061040010	Chip resistor 100KΩ J 1/10W 0603 (RoHS)	1	R718	B6G
278	3001061040010	Chip resistor 100KΩ J 1/10W 0603 (RoHS)	1	R820	B5I
279	3001061220000	Chip resistor 1.2KΩ J 1/10W 0603 (RoHS)	1	L802	B6J
280	3001061220000	Chip resistor 1.2KΩ J 1/10W 0603 (RoHS)	1	R188	T2I
281	3001051220000	Chip resistor 1.2KΩ J 1/16W 0402 (RoHS)	1	R818	B4I
282	3001061520000	Chip resistor 1.5KΩ J 1/10W 0603 (RoHS)	1	R819	B4I
283	3001061800000	Chip resistor 18Ω J 1/10W 0603 (RoHS)	1	R187	T3H
284	3001051810010	Chip resistor 180Ω J 1/16W 0402 (RoHS)	1	R141	T6D
285	3001051810010	Chip resistor 180Ω J 1/16W 0402 (RoHS)	1	R143	B5C
286	3001062200000	Chip resistor 22Ω J 1/10W 0603 (RoHS)	1	R189	T2I
287	3001062220000	Chip resistor 2.2KΩ J 1/10W 0603 (RoHS)	1	R185	T2H
288	3001062230000	Chip resistor 22KΩ J 1/10W 0603 (RoHS)	1	R811	B4J
289	3001062230000	Chip resistor 22KΩ J 1/10W 0603 (RoHS)	1	R813	B4J
290	3001062720000	Chip resistor 2.7KΩ J 1/10W 0603 (RoHS)	1	R190	T3J
291	3001063330010	Chip resistor 33KΩ J 1/10W 0603 (RoHS)	1	R555	T6M
292	3001062210000	Chip resistor 220Ω J 1/10W 0603 (RoHS)	1	R705	B4G
293	3001062210000	Chip resistor 220Ω J 1/10W 0603 (RoHS)	1	R715	B4F
294	3001064710000	Chip resistor 470Ω J 1/10W 0603 (RoHS)	1	R192	T2J
295	3001064710000	Chip resistor 470Ω J 1/10W 0603 (RoHS)	1	R556	T6L
296	3001064730000	Chip resistor 47KΩ J 1/10W 0603 (RoHS)	1	R551	T4L
297	3001064730000	Chip resistor 47KΩ J 1/10W 0603 (RoHS)	1	R561	T6L
298	3001071800000	Chip resistor 18Ω J 1/8W 0805 (RoHS)	1	R191	T3J
299	3001075690000	Chip resistor 5.6Ω J 1/8W 0805 (RoHS)	1	R195	T1J
300	3001078210000	Chip resistor 820Ω J 1/8W 0805 (RoHS)	1	R194	T2J
301	3001078210000	Chip resistor 820Ω J 1/8W 0805 (RoHS)	1	R196	T1J
302	3001161210000	Chip resistor 120Ω J 1/2W 2010 (RoHS)	1	R201	T3F
303	3001162200000	Chip resistor 22Ω J 1/2W 2010 (RoHS)	1	R193	T2I
304	3001164720000	Chip resistor 4.7KΩ J 1/2W 2010 (RoHS)	1	R552	T5M
305	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP501	T8H
306	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP502	T8G
307	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP503	T8F
308	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP504	T8F
309	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP505	T8G
310	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP506	T7F
311	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP508	T7F
312	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP509	T6F
313	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP510	T6F
314	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP513	T6G

315	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP514	T6H
316	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP515	T7H
317	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP516	T7H
318	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP517	T7H
319	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP518	T7H
320	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP519	T7H
321	3005051020000	Integrated resistor 1K J 1/16W 2*0402 (RoHS)	1	CP521	T8G
322	3101051000020	Chip capacitor 10PF J 50V 0402 (RoHS)	1	C173	T6B
323	3101051000020	Chip capacitor 10PF J 50V 0402 (RoHS)	1	C189	B6I
324	3101051000020	Chip capacitor 10PF J 50V 0402 (RoHS)	1	C194	B6E
325	3101051000020	Chip capacitor 10PF J 50V 0402 (RoHS)	1	C197	B6E
326	3101051000020	Chip capacitor 10PF J 50V 0402 (RoHS)	1	C826	B6J
327	3101051000020	Chip capacitor 10PF J 50V 0402 (RoHS)	1	C827	B6J
328	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C155	T7A
329	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C180	T6C
330	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C201	B5F
331	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C203	B4E
332	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C225	T4C
333	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C238	T4D
334	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C441	B7K
335	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C445	B7E
336	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C458	T9D
337	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C462	T8D
338	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C605	B4L
339	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C805	B5J
340	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C806	B5J
341	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C807	B6J
342	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C809	B5J
343	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C810	B5J
344	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C830	B4I
345	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C917	T7I
346	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C919	B7H
347	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C921	B7I
348	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C922	T7H
349	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C923	B7I
350	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C924	B7I
351	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C925	T8H
352	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C926	B7H
353	3101051020010	Chip capacitor 1000PF K 50V 0402 (RoHS)	1	C929	B7H
354	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C163	T6B
355	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C239	T4C
356	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C240	T4D
357	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C243	T6B
358	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C401	B7G
359	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C456	T6D
360	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C461	T8E
361	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C465	T8E
362	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C506	T6H
363	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C554	B9J
364	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C603	B6M
365	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C903	B8E
366	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C905	B8D
367	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C145	B6D

368	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C154	B5D
369	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C165	T6B
370	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C167	T6B
371	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C168	T7B
372	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C169	T7C
373	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C174	T6B
374	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C175	T5A
375	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C176	T5B
376	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C179	T6C
377	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C202	B4E
378	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C403	B7F
379	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C405	B8F
380	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C406	B7G
381	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C407	B7F
382	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C430	B8E
383	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C431	T8D
384	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C437	T8J
385	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C440	B7K
386	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C453	T7D
387	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C463	T8E
388	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C466	B8E
389	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C504	T6F
390	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C505	T6H
391	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C507	T7H
392	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C511	B6L
393	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C525	T7M
394	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C537	B8L
395	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C602	B5L
396	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C609	T8K
397	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C801	B6I
398	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C803	B6J
399	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C829	B4I
400	3101051040010	Chip capacitor 0.1UF Z 25V 0402 (RoHS)	1	C911	B8D
401	3101051050000	Chip capacitor 1UF K 6.3V 0402 (RoHS)	1	C438	B8J
402	3101051050000	Chip capacitor 1UF K 6.3V 0402 (RoHS)	1	C444	B7J
403	3101051050000	Chip capacitor 1UF K 6.3V 0402 (RoHS)	1	C449	B7D
404	3101051050000	Chip capacitor 1UF K 6.3V 0402 (RoHS)	1	C450	B7D
405	3101051050000	Chip capacitor 1UF K 6.3V 0402 (RoHS)	1	C467	B7D
406	3101051050000	Chip capacitor 1UF K 6.3V 0402 (RoHS)	1	C468	B7J
407	3101051050000	Chip capacitor 1UF K 6.3V 0402 (RoHS)	1	C470	B7H
408	3101051050000	Chip capacitor 1UF K 6.3V 0402 (RoHS)	1	C569	T7I
409	3101051050000	Chip capacitor 1UF K 6.3V 0402 (RoHS)	1	C927	T7H
410	3101051050000	Chip capacitor 1UF K 6.3V 0402 (RoHS)	1	C928	T7I
411	3101051230000	Chip capacitor 0.012UF K 25V 0402 (RoHS)	1	C454	T7D
412	3101051500020	Chip capacitor 15PF J 50V 0402 (RoHS)	1	C244	B4B
413	3101051500020	Chip capacitor 15PF J 50V 0402 (RoHS)	1	C501	T7E
414	3101051510000	Chip capacitor 150PF J 50V 0402 (RoHS)	1	C425	B8E
415	3101051830000	Chip capacitor 0.018UF K 16V 0402 (RoHS)	1	C409	B7G
416	3101051830000	Chip capacitor 0.018UF K 16V 0402 (RoHS)	1	C823	B6K
417	3101052200010	Chip capacitor 22PF J 50V 0402 (RoHS)	1	C157	T6A
418	3101052200010	Chip capacitor 22PF J 50V 0402 (RoHS)	1	C427	B8E
419	3101052200010	Chip capacitor 22PF J 50V 0402 (RoHS)	1	C428	B8E
420	3101052210010	Chip capacitor 220PF K 50V 0402 (RoHS)	1	C129	B4A

421	3101052220010	Chip capacitor 2200pF K 50V 0402 (RoHS)	1	C455	T7D
422	3101052700000	Chip capacitor 27PF J 50V 0402 (RoHS)	1	C124	B4B
423	3101052700000	Chip capacitor 27PF J 50V 0402 (RoHS)	1	C246	B6B
424	3101052700000	Chip capacitor 27PF J 50V 0402 (RoHS)	1	C249	B6C
425	3101052700000	Chip capacitor 27PF J 50V 0402 (RoHS)	1	C502	T7F
426	3101052700000	Chip capacitor 27PF J 50V 0402 (RoHS)	1	C503	T7F
427	3101052720000	Chip capacitor 2700PF K 50V 0402 (RoHS)	1	C460	T8D
428	3101052730000	Chip capacitor 0.027UF K 16V 0402 (RoHS)	1	C426	B8E
429	3101053300000	Chip capacitor 33PF J 50V 0402 (RoHS)	1	C128	B4A
430	3101053300000	Chip capacitor 33PF J 50V 0402 (RoHS)	1	C153	T5B
431	3101053300000	Chip capacitor 33PF J 50V 0402 (RoHS)	1	C415	B7F
432	3101053300000	Chip capacitor 33PF J 50V 0402 (RoHS)	1	C423	B7E
433	3101053300000	Chip capacitor 33PF J 50V 0402 (RoHS)	1	C908	B8D
434	3101053310030	Chip capacitor 330PF J 50V 0402 (RoHS)	1	C439	B7J
435	3101053310030	Chip capacitor 330PF J 50V 0402 (RoHS)	1	C471	B8H
436	3101054700010	Chip capacitor 47PF J 50V 0402 (RoHS)	1	C248	B4B
437	3101054700010	Chip capacitor 47PF J 50V 0402 (RoHS)	1	C433	B8J
438	3101054700010	Chip capacitor 47PF J 50V 0402 (RoHS)	1	C435	B8K
439	3101054700010	Chip capacitor 47PF J 50V 0402 (RoHS)	1	C447	B7D
440	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C115	T5B
441	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C122	B6A
442	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C132	B5A
443	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C140	T4C
444	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C141	B6B
445	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C144	B6D
446	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C147	B5C
447	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C166	B6C
448	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C172	T6B
449	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C183	B5F
450	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C184	B6I
451	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C191	B5I
452	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C192	B6D
453	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C200	B4F
454	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C209	T2I
455	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C211	T2I
456	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C214	T2I
457	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C432	B8J
458	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C442	B7J
459	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C443	B7J
460	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C555	B9H
461	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C556	B9H
462	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C557	B9I
463	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C558	B9I
464	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C559	B9I
465	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C560	B9I
466	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C561	B9I
467	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C562	B9I
468	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C578	B6I
469	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C802	B5I
470	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C817	B6F
471	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C818	B6F
472	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C820	B4J
473	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C821	B4I

474	3101054710010	Chip capacitor 470PF K 50V 0402 (RoHS)	1	C822	B5I
475	3101054720000	Chip capacitor 4700PF K 50V 0402 (RoHS)	1	C402	B7G
476	3101054740020	Chip capacitor 0.47uF K 10V 0402 (RoHS)	1	C420	B7F
477	3101054740020	Chip capacitor 0.47uF K 10V 0402 (RoHS)	1	C422	B7E
478	3101054740020	Chip capacitor 0.47uF K 10V 0402 (RoHS)	1	C909	B8D
479	3101054740020	Chip capacitor 0.47uF K 10V 0402 (RoHS)	1	C912	T6E
480	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C170	T6B
481	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C171	T6B
482	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C421	B7E
483	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C543	T8F
484	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C544	T8F
485	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C545	T8G
486	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C546	T6H
487	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C547	T7H
488	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C548	T6G
489	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C549	T6G
490	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C550	T9G
491	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C551	B8G
492	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C552	T9G
493	3101055610000	Chip capacitor 560PF K 50V 0402 (RoHS)	1	C910	B9D
494	3101056830000	Chip capacitor 0.068UF K 6.3V 0402 (RoHS)	1	C452	T6D
495	3101056840010	Chip capacitor 0.68UF Z 10V 0402 (RoHS)	1	C419	B7J
496	3101058200000	Chip capacitor 82PF J 50V 0402 (RoHS)	1	C178	T5B
497	3101060200010	Chip capacitor 2PF B 50V 0603 (RoHS)	1	C112	T4B
498	3101060200010	Chip capacitor 2PF B 50V 0603 (RoHS)	1	C219	T2J
499	3101060300010	Chip capacitor 3PF B 50V 0603 (RoHS)	1	C706	B5G
500	3101060300010	Chip capacitor 3PF B 50V 0603 (RoHS)	1	C707	B5G
501	3101060300010	Chip capacitor 3PF B 50V 0603 (RoHS)	1	C813	B4J
502	3101060390000	Chip capacitor 0.3PF B 50V 0603 (RoHS)	1	C109	T4B
503	3101060390000	Chip capacitor 0.3PF B 50V 0603 (RoHS)	1	C110	T4B
504	3101061200000	Chip capacitor 12PF J 50V 0603 (RoHS)	1	C212	T3I
505	3101061200000	Chip capacitor 12PF J 50V 0603 (RoHS)	1	C703	B5H
506	3101060590010	Chip capacitor 0.5PF B 50V 0603 (RoHS)	1	C111	T4B
507	3101060590010	Chip capacitor 0.5PF B 50V 0603 (RoHS)	1	C705	B6G
508	3101060590010	Chip capacitor 0.5PF B 50V 0603 (RoHS)	1	C709	B5G
509	3101060590010	Chip capacitor 0.5PF B 50V 0603 (RoHS)	1	C717	B4G
510	3101060600010	Chip capacitor 6PF B 50V 0603 (RoHS)	1	C218	T2J
511	3101060600010	Chip capacitor 6PF B 50V 0603 (RoHS)	1	C472	B5H
512	3101060600010	Chip capacitor 6PF B 50V 0603 (RoHS)	1	C722	B4F
513	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C220	T2J
514	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C236	B3A
515	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C526	T2L
516	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C529	T4L
517	3101061020000	Chip capacitor 1000PF K 50V 0603 (RoHS)	1	C532	T4L
518	3101061030010	Chip capacitor 0.01UF K 25V 0603 (RoHS)	1	C152	T5C
519	3101061030010	Chip capacitor 0.01UF K 25V 0603 (RoHS)	1	C227	T3G
520	3101061030010	Chip capacitor 0.01UF K 25V 0603 (RoHS)	1	C228	T3F
521	3101061030010	Chip capacitor 0.01UF K 25V 0603 (RoHS)	1	C512	B6L
522	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C222	T1H
523	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C235	T1G
524	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C518	B8M
525	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C519	B8M
526	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C520	B6M

527	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C521	B6M
528	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C528	T7L
529	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C534	B6L
530	3101061040010	Chip capacitor 0.1UF K 16V 0603 (RoHS)	1	C536	T5L
531	3101061050000	Chip capacitor 1UF Z 25V 0603 (RoHS)	1	C408	B7G
532	3101061050000	Chip capacitor 1UF Z 25V 0603 (RoHS)	1	C412	B8G
533	3101061050000	Chip capacitor 1UF Z 25V 0603 (RoHS)	1	C434	B8K
534	3101061050000	Chip capacitor 1UF Z 25V 0603 (RoHS)	1	C513	B6L
535	3101061050000	Chip capacitor 1UF Z 25V 0603 (RoHS)	1	C514	B8L
536	3101061500010	Chip capacitor 15PF J 50V 0603 (RoHS)	1	C204	B5E
537	3101062220010	Chip capacitor 2200PF K 50V 0603 (RoHS)	1	C416	B7F
538	3101062240000	Chip capacitor 0.22UF K 10V 0603 (RoHS)	1	C237	T4C
539	3101062240000	Chip capacitor 0.22UF K 10V 0603 (RoHS)	1	C414	B8F
540	3101062240000	Chip capacitor 0.22UF K 10V 0603 (RoHS)	1	C522	T7L
541	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C113	T4B
542	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C114	T4B
543	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C205	T3H
544	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C207	T3H
545	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C208	T2H
546	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C210	T3H
547	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C215	T3J
548	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C216	T2J
549	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C217	T2I
550	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C223	T1I
551	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C226	T3G
552	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C232	T1G
553	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C530	T4L
554	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C531	T4L
555	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C708	B5F
556	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C716	B4G
557	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C718	B4F
558	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C719	B4F
559	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C720	B4F
560	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C721	B4F
561	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C723	B4F
562	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C726	B6F
563	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C755	B6H
564	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C812	B4I
565	3101066800000	Chip capacitor 68PF J 50V 0603 (RoHS)	1	C118	B4C
566	3101074730000	Chip capacitor 0.047UF K 25V 0805 (RoHS)	1	C814	B4I
567	3103994760180	Electrolytic Capacitor 47uf M 25V (RoHS)	1	C234	T2F
568	3103994760180	Electrolytic Capacitor 47uf M 25V (RoHS)	1	C533	T5L
569	3104071050070	Tantalum capacitor1UF M 16V (RoHS)	1	C241	T4D
570	3104071050070	Tantalum capacitor1UF M 16V (RoHS)	1	C417	B7F
571	3104071050070	Tantalum capacitor1UF M 16V (RoHS)	1	C418	B7E
572	3104071050070	Tantalum capacitor1UF M 16V (RoHS)	1	C517	B7K
573	3104071050070	Tantalum capacitor1UF M 16V (RoHS)	1	C608	B3L
574	3104071060080	Tantalum capacitor 10UF M 6.3V (RoHS)	1	C164	T6A
575	3104071560040	Tantalum capacitor 15UF M 6.3V (RoHS)	1	C429	B8E
576	3104072250060	Tantalum capacitor 2.2UF M 10V (RoHS)	1	C250	T5D
577	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C247	B6C
578	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C411	B8G
579	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C424	B8E

580	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C448	B8D
581	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C457	T6D
582	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C464	T8E
583	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C469	B8H
584	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C604	B6M
585	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C804	B6J
586	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C811	B5J
587	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C825	B5K
588	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C828	B4I
589	3104074750070	Tantalum capacitor 4.7UF M 10V (RoHS)	1	C831	B6J
590	3104081040020	Tantalum capacitor 0.1UF M 35V (RoHS)	1	C221	T1H
591	3104081040020	Tantalum capacitor 0.1UF M 35V (RoHS)	1	C816	B4I
592	3104081060120	Tantalum capacitor 10UF M 16V (RoHS)	1	C523	T7L
593	3104081060120	Tantalum capacitor 10UF M 16V (RoHS)	1	C553	B8J
594	3104081060120	Tantalum capacitor 10UF M 16V (RoHS)	1	C607	B2L
595	3104081060120	Tantalum capacitor 10UF M 16V (RoHS)	1	C724	B6G
596	3104081060120	Tantalum capacitor 10UF M 16V (RoHS)	1	C819	B6F
597	3104083350050	Tantalum capacitor 3.3UF M 16V (RoHS)	1	C815	B4I
598	3104086850040	Tantalum capacitor 6.8UF M 10V (RoHS)	1	C181	T6C
599	3210306180000	Multi-layer chip inductor 18nH J 350mA (RoHS)	1	L138	B6D
600	3210306180000	Multi-layer chip inductor 18nH J 350mA (RoHS)	1	L710	B4F
601	3210306220000	Multi-layer chip inductor 22nH J 300mA (RoHS)	1	L123	B5D
602	3213212100000	Wound chip inductor 10nH J 530mA 0.26Ω (RoHS)	1	L127	T2I
603	3213212100000	Wound chip inductor 10nH J 530mA 0.26Ω (RoHS)	1	L128	T2J
604	3213212103000	Wound chip inductor 10uH J 155mA 3.5Ω (RoHS)	1	L134	T6C
605	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L129	T1I
606	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L135	B5B
607	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L137	B6C
608	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L501	T8E
609	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L503	T6F
610	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L504	T6G
611	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L505	T6G
612	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L506	B9G
613	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L507	B8H
614	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L508	B8G
615	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L509	B9G
616	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L510	B8G
617	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L511	B9G
618	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L512	B9G
619	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L513	B8G
620	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L514	B9G
621	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L515	B8G
622	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L516	B9G
623	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L517	B8G
624	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L518	B9G
625	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L519	B8G
626	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L520	B9F
627	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L521	B8G
628	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L522	B9F
629	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L523	B8F
630	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L524	B9F
631	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L525	B8F
632	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L526	B9F

633	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L527	B8F
634	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L528	B9F
635	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L529	B8F
636	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L530	B9F
637	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L531	B8F
638	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L532	B9F
639	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L533	B8F
640	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L534	B9H
641	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L535	B9I
642	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L801	B6J
643	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L803	B3K
644	3221506601000	Bead 600Ω 100MHz ±25% 500mA 0603 (RoHS)	1	L804	B4J
645	3231132830000	Air core inductor 1.3*2.8*3TR (RoHS)	1	L102	B2B
646	3231132830000	Air core inductor 1.3*2.8*3TR (RoHS)	1	L103	B2C
647	3231803011000	Air core inductor 0.8*3.0*11TR (RoHS)	1	L101	B1C
648	3231803060000	Air core inductor 0.8*3.0*6TR (RoHS)	1	L133	T4E
649	3302030500000	Zener diode 10V (RoHS)	1	D514	T7L
650	3302030500010	Zener diode 15V (RoHS)	1	D518	T6L
651	3302030500030	Zener diode 5.1V (RoHS)	1	D112	B5C
652	3302030500030	Zener diode 5.1V (RoHS)	1	D118	T1H
653	3302180100000	Zener Diode 5V (RoHS)	1	D802	B4J
654	3303010500040	Switching Diode 80V 100mA 1.2V/100mA (RoHS)	1	D103	T4B
655	3303010500040	Switching Diode 80V 100mA 1.2V/100mA (RoHS)	1	D116	T2H
656	3303010500040	Switching Diode 80V 100mA 1.2V/100mA (RoHS)	1	D511	T7L
657	3303010500040	Switching Diode 80V 100mA 1.2V/100mA (RoHS)	1	D513	T7L
658	3303010500040	Switching Diode 80V 100mA 1.2V/100mA (RoHS)	1	D517	T6L
659	3303030100010	Switching Diode 80V 100mA 1V/100mA (RoHS)	1	D113	T7A
660	3303030100010	Switching Diode 80V 100mA 1V/100mA (RoHS)	1	D114	T7B
661	3303210100000	Switching Diode 50V 1V/50mA 4ns (RoHS)	1	D104	T3E
662	3303210100000	Switching Diode 50V 1V/50mA 4ns (RoHS)	1	D105	B3D
663	3399990000240	Zener Diode 4.7V (RoHS)	1	D119	T4B
664	3401001000490	PNP Transistor 50V 150mA 200~400 (RoHS)	1	Q802	B4J
665	3401002000140	NPN Transistor 30V 20mA 100~200 (RoHS)	1	Q113	T5B
666	3401002000290	NPN Transistor 50V 150mA 200~400 (RoHS)	1	Q404	B8J
667	3401002000290	NPN Transistor 50V 150mA 200~400 (RoHS)	1	Q704	B5F
668	3401002000290	NPN Transistor 50V 150mA 200~400 (RoHS)	1	Q705	B4F
669	3403002000000	PNP Transistor 32V 1A 82~390 (RoHS)	1	Q601	B4L
670	3403002000000	PNP Transistor 32V 1A 82~390 (RoHS)	1	Q603	B2L
671	3403003000000	NPN Transistor 50V 150mA 120~560 (RoHS)	1	Q114	T4A
672	3403003000060	NPN Transistor 50V 150mA 270~560 (RoHS)	1	Q401	B7F
673	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q105	T6C
674	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q106	T5A
675	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q514	T6L
676	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q516	T7L
677	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q519	T7L
678	3403007000000	BRT Vce:50V Vloff:0.5V Vlon:3V 70mA (RoHS)	1	Q520	T7L
679	3408002000010	NPN Transistor 12V 100mA 120 (RoHS)	1	Q109	T3J
680	3408002000010	NPN Transistor 12V 100mA 120 (RoHS)	1	Q110	T3I
681	3501030000000	P-MOSFET VDS:-30V ID:-10A VGS(th):-1.5V (RoHS)	1	Q512	T4L
682	3411002000020	NPN Transistor 50V 150mA 200~400 (RoHS)	1	Q801	B6F
683	3411002000020	NPN Transistor 50V 150mA 200~400 (RoHS)	1	Q901	T6F
684	3501020000030	N-MOSFET VDS:6V ID:20mA VGS(th):0.7V (RoHS)	1	Q112	B6D
685	3503020000030	N-MOSFET VDS:30V ID:100mA VGS(th):3.0V (RoHS)	1	Q403	B8G

686	3503020000030	N-MOSFET VDS:30V ID:100mA VGS(th):3.0V (RoHS)	1	Q405	B7J
687	3503020000030	N-MOSFET VDS:30V ID:100mA VGS(th):3.0V (RoHS)	1	Q406	B7J
688	3503020000030	N-MOSFET VDS:30V ID:100mA VGS(th):3.0V (RoHS)	1	Q502	T6G
689	3503020000030	N-MOSFET VDS:30V ID:100mA VGS(th):3.0V (RoHS)	1	Q511	B6L
690	3503020000030	N-MOSFET VDS:30V ID:100mA VGS(th):3.0V (RoHS)	1	Q521	B9L
691	3602017006350	Audio amplifier 10W+10W 6.5~18V 32dB (RoHS)	1	IC511	B8M
692	3605002054790	Operational amplifier 4~18V 250mW 100dB (RoHS)	1	IC404	T6D
693	3605002057090	Operational amplifier 6~12V 200mW 100dB (RoHS)	1	IC103	T4D
694	3605002057090	Operational amplifier 6~12V 200mW 100dB (RoHS)	1	IC407	B7H
695	3605002057290	Operational amplifier 1.5~7V 200mW 70dB (RoHS)	1	IC402	B7D
696	3605002057290	Operational amplifier 1.5~7V 200mW 70dB (RoHS)	1	IC403	T8E
697	3605002057290	Operational amplifier 1.5~7V 200mW 70dB (RoHS)	1	IC405	B8K
698	3607002000180	Logic IC 3~18V (RoHS)	1	IC512	T7M
699	3608002020890	Power management IC 5V 1.0A (RoHS)	1	IC602	B5L
700	3608015005600	Power management IC 3V 250mA (RoHS)	1	IC803	B4J
701	3609007001590	IF processor 1.1GHz (RoHS)	1	IC801	B5I
702	3612022000000	Memory 256K 1.8~5.5V (RoHS)	1	IC501	T6H
703	3613034001060	Baseband processor 1.5~5.9V (RoHS)	1	IC401	B8E
704	3701098340010	Crystal ±30ppm 20pF (RoHS)	1	X501	T7E
705	3701368630000	Crystal±100ppm 20pF (RoHS)	1	X402	B8E
706	3802499540040	Crystal Filter ±6.0kHz (RoHS)	1	XF200	T5C
707	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q402	B8F
708	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q501	T7F
709	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q503	T6H
710	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q504	T6J
711	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q513	T6M
712	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q515	T6L
713	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q517	T7L
714	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q518	T7L
715	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q602	B4L
716	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q604	B2L
717	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q706	B4F
718	3210306561010	Multi-layer chip inductor 560nH K 35mA (RoHS)	1	L114	B5D
719	3003061040000	Thermistor 100KΩ J 0603 (RoHS)	1	TH101	B2A
720	3221513600000	Bead 60Ω 100MHz ±25% 6000mA 1806 (RoHS)	1	L131	T1G
721	3221513600000	Bead 60Ω 100MHz ±25% 6000mA 1806 (RoHS)	1	L132	T1G
722	3001055640000	Chip resistor 560KΩ J 1/16W 0402 (RoHS)	1	R156	T6B
723	3001055640000	Chip resistor 560KΩ J 1/16W 0402 (RoHS)	1	R406	B7F
724	3001053920010	Chip resistor 3.9KΩ J 1/16W 0402 (RoHS)	1	R155	T7B
725	5205015000000	Board-to-cable connector 15Pin 1.25mm (RoHS)	1	J503	T8L
726	3101051530010	Chip capacitor 0.015UF K 16V 0402 (RoHS)	1	C410	B7G
727	3101051530010	Chip capacitor 0.015UF K 16V 0402 (RoHS)	1	C824	B6K
728	3401002000150	NPN Transistor 50V 150mA 200~400 (RoHS)	1	Q803	B4J
729	3605002054590	Operational amplifier 6~12V 250mW 100dB (RoHS)	1	IC104	T4C
730	3101080200010	Chip capacitor 2pF C 500V 1206 (RoHS)	1	C105	B3C
731	3101080100010	Chip capacitor 1pF C 500V 1206 (RoHS)	1	C102	B2B
732	3101080100010	Chip capacitor 1pF C 500V 1206 (RoHS)	1	C104	B2C
733	3101084710010	Chip capacitor 470pF K 630V 1206 (RoHS)	1	C108	B2C
734	3101084710010	Chip capacitor 470pF K 630V 1206 (RoHS)	1	C229	T3F
735	3101084710010	Chip capacitor 470pF K 630V 1206 (RoHS)	1	L130	T1D
736	3101084710010	Chip capacitor 470pF K 630V 1206 (RoHS)	1	L144	B2A
737	3101080500010	Chip capacitor 5pF C 500V 1206 (RoHS)	1	C103	B3B
738	3101080500010	Chip capacitor 5pF C 500V 1206 (RoHS)	1	C116	T2C

739	3001052230000	Chip resistor 22KΩ F 1/16W 0402 (RoHS)	1	R491	B8H
740	3001051510000	Chip resistor 150Ω J 1/16W 0402 (RoHS)	1	R137	B6D
741	3001051510000	Chip resistor 150Ω J 1/16W 0402 (RoHS)	1	R173	B6I
742	3001051510000	Chip resistor 150Ω J 1/16W 0402 (RoHS)	1	R412	B7F
743	410M6251001D0	PCB main board FR4 6L 2P D (RoHS)	1		
744	3101051810010	Chip capacitor 180p J 50V 0402 (RoHS)	1	C451	T6D
745	3001051240000	Chip resistor 120KΩ J 1/16W 0402 (RoHS)	1	R437	B7D
746	3610045000200	MCU 16-bit 2.7~5.5V 20MHz (RoHS)	1	IC502	T7G
747	3302030500020	Zener diode 18V (RoHS)	1	D512	T6L
748	4002000000300	Fuse 32V 0.5A 0603-FF (RoHS)	1	FP101	B8H
749	4002000000300	Fuse 32V 0.5A 0603-FF (RoHS)	1	FP102	B9H
750	3210406331000	Multi-layer chip inductor 330nH K 35mA (RoHS)	1	L113	B5D
751	3001051520010	Chip resistor 1.5KΩ F 1/16W 0402 (RoHS)	1	R123	B4A
752	3001051520010	Chip resistor 1.5KΩ F 1/16W 0402 (RoHS)	1	R151	T6C
753	3001051820010	Chip resistor 1.8KΩ F 1/16W 0402 (RoHS)	1	R121	B4A
754	3001051820010	Chip resistor 1.8KΩ F 1/16W 0402 (RoHS)	1	R150	T6C
755	3101050400010	Chip capacitor 4PF B 50V 0402 (RoHS)	1	C127	B4C
756	3101061040020	Chip capacitor 0.1UF Z 25V F 0603 (RoHS)	1	C540	T6L
757	3101061040020	Chip capacitor 0.1UF Z 25V F 0603 (RoHS)	1	C541	T6L
758	3104084750040	Tantalum capacitor 1206 4.7uF K 16V (RoHS)	1	C524	T6N
759	3104084750040	Tantalum capacitor 1206 4.7uF K 16V (RoHS)	1	C601	B5L
760	3609999000330	Reset IC 4.65V (RoHS)	1	IC901	T6E
761	3399990000260	Rectifier Diode 10V 15mA 380mV/1mA (RoHS)	1	D418	B4B
762	3418001000010	NPN Transistor 10V 50mA 150 (RoHS)	1	Q111	B4A
763	3101050600010	Chip capacitor 6PF B 50V 0402 (RoHS)	1	C186	B6I
764	3101050600010	Chip capacitor 6PF B 50V 0402 (RoHS)	1	C190	B5I
765	3101050800000	Chip capacitor 8PF B 50V 0402 (RoHS)	1	C123	B4B
766	3101050800000	Chip capacitor 8PF B 50V 0402 (RoHS)	1	C133	B6A
767	3101050800000	Chip capacitor 8PF B 50V 0402 (RoHS)	1	C185	B6I
768	3101050700010	Chip capacitor 7PF B 50V 0402 (RoHS)	1	C121	B4C
769	3101050700010	Chip capacitor 7PF B 50V 0402 (RoHS)	1	C130	B4B
770	3101050700010	Chip capacitor 7PF B 50V 0402 (RoHS)	1	C139	B6B
771	3101050700010	Chip capacitor 7PF B 50V 0402 (RoHS)	1	C245	B6B
772	3231351640000	Air core inductor E2-0.35*1.6*4TL (RoHS)	1	L106	B4C
773	3231351640000	Air core inductor E2-0.35*1.6*4TL (RoHS)	1	L107	B4C
774	3231351640000	Air core inductor E2-0.35*1.6*4TL (RoHS)	1	L108	B4B
775	3231351640000	Air core inductor E2-0.35*1.6*4TL (RoHS)	1	L111	B6B
776	3231351640000	Air core inductor E2-0.35*1.6*4TL (RoHS)	1	L136	B6B
777	3231351640000	Air core inductor E2-0.35*1.6*4TL (RoHS)	1	L146	B6B
778	3217607330000	Wound chip inductor 33nH G 500mA 0.27Ω (RoHS)	1	L139	B4B
779	3101053690000	Chip capacitor 3.6PF B 50V 0402 (RoHS)	1	C137	B6B
780	3101053690000	Chip capacitor 3.6PF B 50V 0402 (RoHS)	1	C138	B6B
781	3001054320000	Chip resistor 4.3KΩ J 1/16W 0402 (RoHS)	1	R525	T8G
782	3001054320000	Chip resistor 4.3KΩ J 1/16W 0402 (RoHS)	1	R526	T8G
783	3001054320000	Chip resistor 4.3KΩ J 1/16W 0402 (RoHS)	1	R527	T8F
784	3001054320000	Chip resistor 4.3KΩ J 1/16W 0402 (RoHS)	1	R528	T8F
785	3101051040060	Chip capacitor 0.1UF K 16V 0402 (RoHS)	1	C100	B5B
786	3101051040060	Chip capacitor 0.1UF K 16V 0402 (RoHS)	1	C126	B5C
787	3101051040060	Chip capacitor 0.1UF K 16V 0402 (RoHS)	1	C135	B5B
788	3214307181000	Chip inductor 180nH J 400mA 0.64Ω (RoHS)	1	L109	B4A
789	3101051010030	Chip capacitor 100PF J 50V 0402 (RoHS)	1	C136	B5B
790	3001053310010	Chip resistor 330Ω J 1/16W 0402 (RoHS)	1	R177	B4F
791	3101053000010	Chip capacitor 30PF J 50V 0402 (RoHS)	1	C162	T7A

792	3101050500000	Chip capacitor 5PF C 50V 0402 (RoHS)	1	C930	T2H
793	3101050500000	Chip capacitor 5PF C 50V 0402 (RoHS)	1	C931	T2I
794	3101050500000	Chip capacitor 5PF C 50V 0402 (RoHS)	1	C932	T4C
795	3701049550020	Crystal oscillator ±10PPM 12pF (RoHS)	1	X401	T6A
796	3001051800000	Chip resistor 18Ω J 1/16W 0402 (RoHS)	1	R168	B5F
797	3001051800000	Chip resistor 18Ω J 1/16W 0402 (RoHS)	1	R183	T3H
798	3001053300010	Chip resistor 33Ω J 1/16W 0402 (RoHS)	1	R139	B6C
799	3001053300010	Chip resistor 33Ω J 1/16W 0402 (RoHS)	1	R167	B6I
800	3001054700000	Chip resistor 47Ω J 1/16W 0402 (RoHS)	1	R169	B5F
801	3001055600000	Chip resistor 56Ω J 1/16W 0402 (RoHS)	1	R203	B5I
802	3001062240010	Chip resistor 220KΩ J 1/10W 0603 (RoHS)	1	R713	B4F
803	3001062710000	Chip resistor 270Ω J 1/10W 0603 (RoHS)	1	R707	B4F
804	3001063300000	Chip resistor 33Ω J 1/10W 0603 (RoHS)	1	R704	B6F
805	3001063300000	Chip resistor 33Ω J 1/10W 0603 (RoHS)	1	R712	B4F
806	3001063310000	Chip resistor 330Ω F 1/10W 0603 (RoHS)	1	R702	B5F
807	3001064700000	Chip resistor 47Ω J 1/10W 0603 (RoHS)	1	R703	B5G
808	3001064720000	Chip resistor 4.7KΩ J 1/10W 0603 (RoHS)	1	R708	B4F
809	3001064720000	Chip resistor 4.7KΩ J 1/10W 0603 (RoHS)	1	R710	B5F
810	3001064720000	Chip resistor 4.7KΩ J 1/10W 0603 (RoHS)	1	R711	B5F
811	3001064720000	Chip resistor 4.7KΩ J 1/10W 0603 (RoHS)	1	R720	B4F
812	3101050200010	Chip capacitor 2PF B 50V 0402 (RoHS)	1	C119	B4B
813	3101050200010	Chip capacitor 2PF B 50V 0402 (RoHS)	1	C120	B4C
814	3101050200010	Chip capacitor 2PF B 50V 0402 (RoHS)	1	C146	B6D
815	3101050200010	Chip capacitor 2PF B 50V 0402 (RoHS)	1	C187	B6I
816	3101050200010	Chip capacitor 2PF B 50V 0402 (RoHS)	1	C188	B5I
817	3101061000000	Chip capacitor 10PF J 50V 0603 (RoHS)	1	C206	T3H
818	3102992000000	Trimmer capacitor 6pF ±2.5pF 55V (RoHS)	1	TC701	B5G
819	3102992000000	Trimmer capacitor 6pF ±2.5pF 55V (RoHS)	1	TC702	B4G
820	3210306150000	Multi-layer chip inductor 15nH J 350mA (RoHS)	1	L119	B6I
821	3210306150000	Multi-layer chip inductor 15nH J 350mA (RoHS)	1	L120	B6I
822	3210306150000	Multi-layer chip inductor 15nH J 350mA (RoHS)	1	L121	B5I
823	3210306150000	Multi-layer chip inductor 15nH J 350mA (RoHS)	1	L125	T3H
824	3210306820000	Multi-layer chip inductor 82nH J 300mA (RoHS)	1	L122	B4E
825	3234599180000	SMT Air core coil 18nH (RoHS)	1	L703	B5G
826	3234599180000	SMT Air core coil 18nH (RoHS)	1	L707	B4H
827	3303030100020	Switching Diode -55~125℃ (RoHS)	1	D115	B5E
828	3304010100160	Varactor VR:30V 15pF/2VR 2.3pF/10VR (RoHS)	1	D705	B6G
829	3304010100990	Varactor VR:34V 35pF/2VR 2.8pF/25VR (RoHS)	1	D702	B5H
830	3304010100990	Varactor VR:34V 35pF/2VR 2.8pF/25VR (RoHS)	1	D704	B5H
831	3304010100990	Varactor VR:34V 35pF/2VR 2.8pF/25VR (RoHS)	1	D706	B4H
832	3304010100990	Varactor VR:34V 35pF/2VR 2.8pF/25VR (RoHS)	1	D709	B4H
833	3401002000990	NPN Transistor 10V 30mA 120~240 (RoHS)	1	Q101	B5F
834	3401002000990	NPN Transistor 10V 30mA 120~240 (RoHS)	1	Q102	B6I
835	3401002000990	NPN Transistor 10V 30mA 120~240 (RoHS)	1	Q703	B4G
836	3499000000140	N-JFET VGS:15V VGSoff:-1.4V IDSS:50mA (RoHS)	1	Q701	B5G
837	3499000000140	N-JFET VGS:15V VGSoff:-1.4V IDSS:50mA (RoHS)	1	Q702	B4G
838	3213212102000	Wound chip inductor 1uH J 245mA (RoHS)	1	L701	B5H
839	3213212102000	Wound chip inductor 1uH J 245mA (RoHS)	1	L702	B5H
840	3213212102000	Wound chip inductor 1uH J 245mA (RoHS)	1	L704	B5F
841	3213212102000	Wound chip inductor 1uH J 245mA (RoHS)	1	L705	B4H
842	3213212102000	Wound chip inductor 1uH J 245mA (RoHS)	1	L706	B4H
843	3213212102000	Wound chip inductor 1uH J 245mA (RoHS)	1	L708	B4G
844	3213212102000	Wound chip inductor 1uH J 245mA (RoHS)	1	L709	B4F

845	3213212102000	Wound chip inductor 1uH J 245mA (RoHS)	1	L711	B6G
846	3001052710000	Chip resistor 270Ω F 1/16W 0402 (RoHS)	1	R182	T3H
847	3001052710000	Chip resistor 270Ω F 1/16W 0402 (RoHS)	1	R184	T3H
848	3001065630000	Chip resistor 56KΩ J 1/10W 0603 (RoHS)	1	R717	B6G
849	3101051030050	Chip capacitor 0.01UF K 16V 0402 (RoHS)	1	C143	B6C
850	3101051030050	Chip capacitor 0.01UF K 16V 0402 (RoHS)	1	C148	T5D
851	3101051030050	Chip capacitor 0.01UF K 16V 0402 (RoHS)	1	C242	T5B
852	3101051030050	Chip capacitor 0.01UF K 16V 0402 (RoHS)	1	C606	B2L
853	3101050590020	Chip capacitor 0.5PF B 50V 0402 (RoHS)	1	C196	B5E
854	3101050100030	Chip capacitor 1PF B 50V 0402 (RoHS)	1	C198	B6E
855	3002996830060	Trimmer resistor 68K ±25% 0.15W (RoHS)	1	VR801	T4K
856	3002996830060	Trimmer resistor 68K ±25% 0.15W (RoHS)	1	VR802	T8H
857	3101051800010	Chip capacitor 18PF J 50V 0402 (RoHS)	1	C125	B6A
858	3101052400010	Chip capacitor 24PF J 50V J 0402 (RoHS)	1	C134	B6A
859	3210305120000	Multi-layer chip inductor 12nH J 300mA (RoHS)	1	C199	B6E
860	3101051200020	Chip capacitor 12PF J 50V 0402 (RoHS)	1	C150	T5C
861	3101062200010	Chip capacitor 22PF J 50V 0603 (RoHS)	1	C712	B4H
862	3101060800010	Chip capacitor 8PF B 50V 0603 (RoHS)	1	C714	B4G
863	3101060800010	Chip capacitor 8PF B 50V 0603 (RoHS)	1	C715	B4G
864	3101061810010	Chip capacitor 180PF J 50V 0603 (RoHS)	1	C702	B5H
865	3101061810010	Chip capacitor 180PF J 50V 0603 (RoHS)	1	C711	B4H
866	3101050300000	Chip capacitor 3PF B 50V 0402 (RoHS)	1	C149	T6D
867	3101050300000	Chip capacitor 3PF B 50V 0402 (RoHS)	1	C151	T5C
868	3304180000000	Varactor 15V 9.3~21pF 2.2 (RoHS)	1	D107	B5B
869	3304180000000	Varactor 15V 9.3~21pF 2.2 (RoHS)	1	D108	B5B
870	3304180000000	Varactor 15V 9.3~21pF 2.2 (RoHS)	1	D109	B5B
871	3304180000000	Varactor 15V 9.3~21pF 2.2 (RoHS)	1	D110	B5A
872	3304180000000	Varactor 15V 9.3~21pF 2.2 (RoHS)	1	D111	B5B
873	3231132720000	Air core inductor 1.3*2.7*2TR (RoHS)	1	L105	T2D
874	3101060700030	Chip capacitor 7PF C 50V 0603 (RoHS)	1	C704	B5G
875	3001052730000	Chip resistor 27KΩ J 1/16W 0402 (RoHS)	1	R421	B7E
876	3001061810000	Chip resistor 180Ω J 1/10W 0603 (RoHS)	1	R142	T5C
877	3101060700020	Chip capacitor 7PF B 50V 0603 (RoHS)	1	C713	B4G
878	3101053330000	Chip capacitor 0.033UF K 16V 0402 (RoHS)	1	C224	T4C
879	3001053030000	Chip resistor 30KΩ F 1/16W 0402 (RoHS)	1	R154	T6B
880	3001053320010	Chip resistor 3.3KΩ F 1/16W 0402 (RoHS)	1	R153	T6B
881	1616100001430	Embedded software of HYT mobile radio (RoHS)	1		
882	3001066810000	Chip resistor 680Ω F 1/10W 0603 (RoHS)	1	R181	T2I
883	3101080590000	Chip capacitor 0.5P ±0.1P 500V 1206 (RoHS)	1	C231	T1E
884	3603018000000	IF processor 1.8~5.5V (RoHS)	1	IC102	T6B
885	3303240000000	Switching diode 75V 200mA 1.25V 6ns (RoHS)	1	D501	T6F
886	3303240000000	Switching diode 75V 200mA 1.25V 6ns (RoHS)	1	D801	B6I
887	3303240000000	Switching diode 75V 200mA 1.25V 6ns (RoHS)	1	D803	B6F
888	3701016850070	TCXO 16.8MHz 3.0V ±2.0ppm (RoHS)	1	IC802	B6J
889	5207032000000	FPC connector 32PIN 0.50mm (RoHS)	1	J501	T9G
890	3303020100060	Switching diode 30V 30mA 0.8V/30mA (RoHS)	1	D101	T4B
891	3303020100060	Switching diode 30V 30mA 0.8V/30mA (RoHS)	1	D102	T4B
892	3303020100060	Switching diode 30V 30mA 0.8V/30mA (RoHS)	1	D117	T3I
893	3303020100060	Switching diode 30V 30mA 0.8V/30mA (RoHS)	1	D401	T7D
894	3101054730000	Chip capacitor 0.047UF K 10V 0402 (RoHS)	1	C436	B8K
895	3302060000000	Zener diode 27V (RoHS)	1	D515	T2M

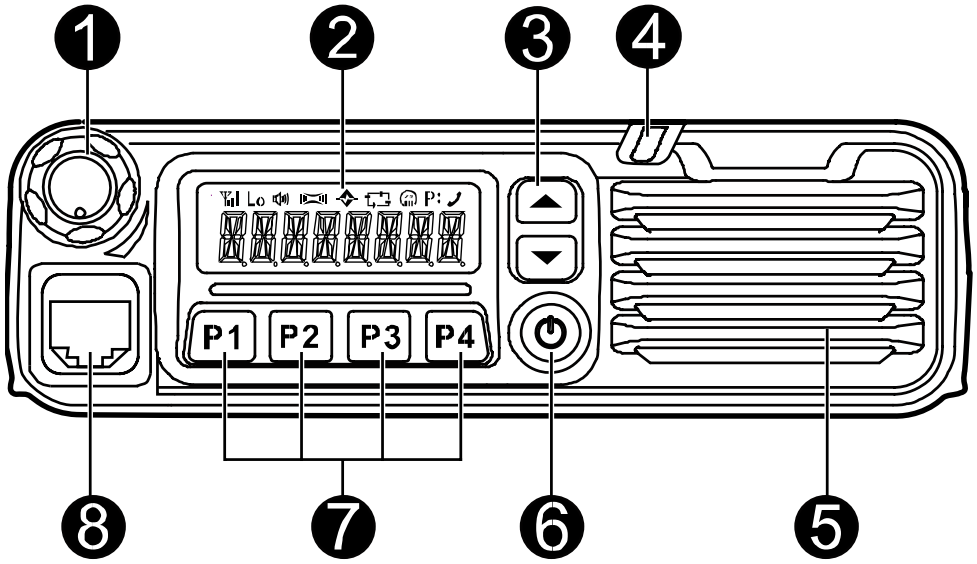
VHF/UHF Parts List 1 (Front Panel)

No.	Material No.	Description	Qty.	Ref. No.	Print No.
1	3001061010000	Chip resistor 100Ω J 1/10W 0603 (RoHS)	1	R341	T3A
2	3001061010000	Chip resistor 100Ω J 1/10W 0603 (RoHS)	1	R344	B4H
3	3001061030000	Chip resistor 10KΩ D 1/10W 0603 (RoHS)	1	R304	B1B
4	3001061040000	Chip resistor 100KΩ D 1/10W 0603 (RoHS)	1	R319	B3D
5	3001061210000	Chip resistor 120Ω J 1/10W 0603 (RoHS)	1	R311	T2J
6	3001061830000	Chip resistor 18KΩ D 1/10W 0603 (RoHS)	1	R308	T2G
7	3001061830000	Chip resistor 18KΩ D 1/10W 0603 (RoHS)	1	R313	T2J
8	3001062700000	Chip resistor 27Ω J 1/10W 0603 (RoHS)	1	R306	T2C
9	3001063310010	Chip resistor 330Ω J 1/10W 0603 (RoHS)	1	R301	B4H
10	3001063920000	Chip resistor 3.9KΩ J 1/10W 0603 (RoHS)	1	R307	TG2
11	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C301	T2C
12	3101064710000	Chip capacitor 470PF K 50V 0603 (RoHS)	1	C302	T2C
13	3399010600000	Diode HSB123TR-E (RoHS)	1	D303	T2C
14	3399010600000	Diode HSB123TR-E (RoHS)	1	Q305	B5H
15	3399010600000	Diode HSB123TR-E (RoHS)	1	Q306	B3C
16	3403002000000	PNP Transistor 32V 1A 82~390 (RoHS)	1	Q302	T2D
17	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q301	B1B
18	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q303	T2H
19	3403008000010	BRT Vce:50V Vloff:0.5V Vlon:3V 100mA (RoHS)	1	Q304	T2J
20	3609023000020	Driver 1.8~5.5V 16-Bit (RoHS)	1	IC301	T2E
21	5207032000000	FPC connector 32PIN 0.50mm (RoHS)	1	J302	B2D
22	3213306221010	Multi-layer chip inductor 0.22uH K 50mA (RoHS)	1	L302	T5C
23	3001050000000	Chip resistor 0Ω J 1/16W 0402 (RoHS)	1	R320	B4H
24	3001051010000	Chip resistor 100Ω J 1/16W 0402 (RoHS)	1	R321	T5C
25	3001051010000	Chip resistor 100Ω J 1/16W 0402 (RoHS)	1	R342	B3E
26	3001051520000	Chip resistor 1.5KΩ J 1/16W 0402 (RoHS)	1	R315	T1E
27	3001051520000	Chip resistor 1.5KΩ J 1/16W 0402 (RoHS)	1	R316	T1E
28	3221506601000	Bead 600Ω 100MHz ±25% 500mA (RoHS)	1	L300	B5I
29	3221506601000	Bead 600Ω 100MHz ±25% 500mA (RoHS)	1	L303	B2E
30	3221506601000	Bead 600Ω 100MHz ±25% 500mA (RoHS)	1	L304	B3C
31	3221506601000	Bead 600Ω 100MHz ±25% 500mA (RoHS)	1	L305	T3G
32	3221506601000	Bead 600Ω 100MHz ±25% 500mA (RoHS)	1	L306	B3C
33	3221506601000	Bead 600Ω 100MHz ±25% 500mA (RoHS)	1	L307	B3D
34	3221506601000	Bead 600Ω 100MHz ±25% 500mA (RoHS)	1	L308	B3E
35	3001051210000	Chip resistor 120Ω J 1/16W 0402 (RoHS)	1	R310	T1I
36	3307110200000	LED 30mA 1.95V(R)+2.1V(G) (RoHS)	1	LED	T1J
37	3101051030020	Chip capacitor 0.01UF K 25V 0402 (RoHS)	1	C304	T1G
38	4002000000180	Fuse 0.25A 0603-FF (RoHS)	1	FP101	B4I
39	4002000000180	Fuse 0.25A 0603-FF (RoHS)	1	FP102	B4H
40	3307110000000	LED Super Bright Orange 160mcd 30mA (RoHS)	1	LED302	T1D
41	3307110000000	LED Super Bright Orange 160mcd 30mA (RoHS)	1	LED303	T1F
42	3307110000000	LED Super Bright Orange 160mcd 30mA (RoHS)	1	LED304	T1G
43	3307110000000	LED Super Bright Orange 160mcd 30mA (RoHS)	1	LED306	T4H
44	3307110000000	LED Super Bright Orange 160mcd 30mA (RoHS)	1	LED307	T3I
45	3307110000000	LED Super Bright Orange 160mcd 30mA (RoHS)	1	LED308	T2I
46	3307110000000	LED Super Bright Orange 160mcd 30mA (RoHS)	1	LED309	T4D
47	3307110000000	LED Super Bright Orange 160mcd 30mA (RoHS)	1	LED310	T4E
48	3307110000000	LED Super Bright Orange 160mcd 30mA (RoHS)	1	LED311	T4G
49	3001051020010	Chip resistor 1KΩ J 1/16W 0402 (RoHS)	1	R340	B5H

50	3001062230000	Chip resistor 22KΩ J 1/10W 0603 (RoHS)	1	L301	B3I
51	3001051530000	Chip resistor 15KΩ J 1/16W 0402 (RoHS)	1	C310	B4I
52	410M6251002C0	PCB front panel FR4 2L 4P C (RoHS)	1		

Tuning Description

1. Key Functions



① Volume Control Knob

② LCD

③ Programmable Functions Keys (**[▲]** / **[▼]**)

④ LED Indicator

⑤ Speaker

⑥ Power Switch

⑦ Programmable Functions Keys (**[P1]**/**[P2]**/**[P3]**/**[P4]**)

⑧ Mic Jack

2. Panel Tuning Mode

2.1 Basic Operations in Panel Tuning Mode

The transceiver is tuned in this mode. For details on mode selection, see “Software Specifications -> Keypad Entry for Mode Startup”.

2.2 Enter Panel Tuning Mode

Power on the radio while holding down **P1** to enter the tuning mode, and the LED would flash red twice. As for the tuning items, all the frequencies and signaling, other than the maximum frequency deviation and sensitivity, return to the values valid for the test frequency channels and test signaling channels before entering the panel tuning mode.

No.	Tuning Item
1	TX High Power
2	TX Low Power
3	Maximum Frequency Deviation
4	CDCSS Balance
5	CTCSS Deviation (67.0Hz)
6	CTCSS Deviation (151.4Hz)
7	CTCSS Deviation (254.1Hz)
8	CDCSS Deviation
9	DTMF Deviation
10	MSK Deviation
11	Single Tone Deviation
12	RX Sensitivity
13	Squelch ON Level (9)
14	Squelch ON Level (3)
15	Squelch OFF Level (9)
16	Squelch OFF Level (3)

Note: The tuning items are displayed on the LCD as described in Section “2.3”.

2.3 Tuning Items and Display

Tuning Items and Display (＊＊＊: 1-256)

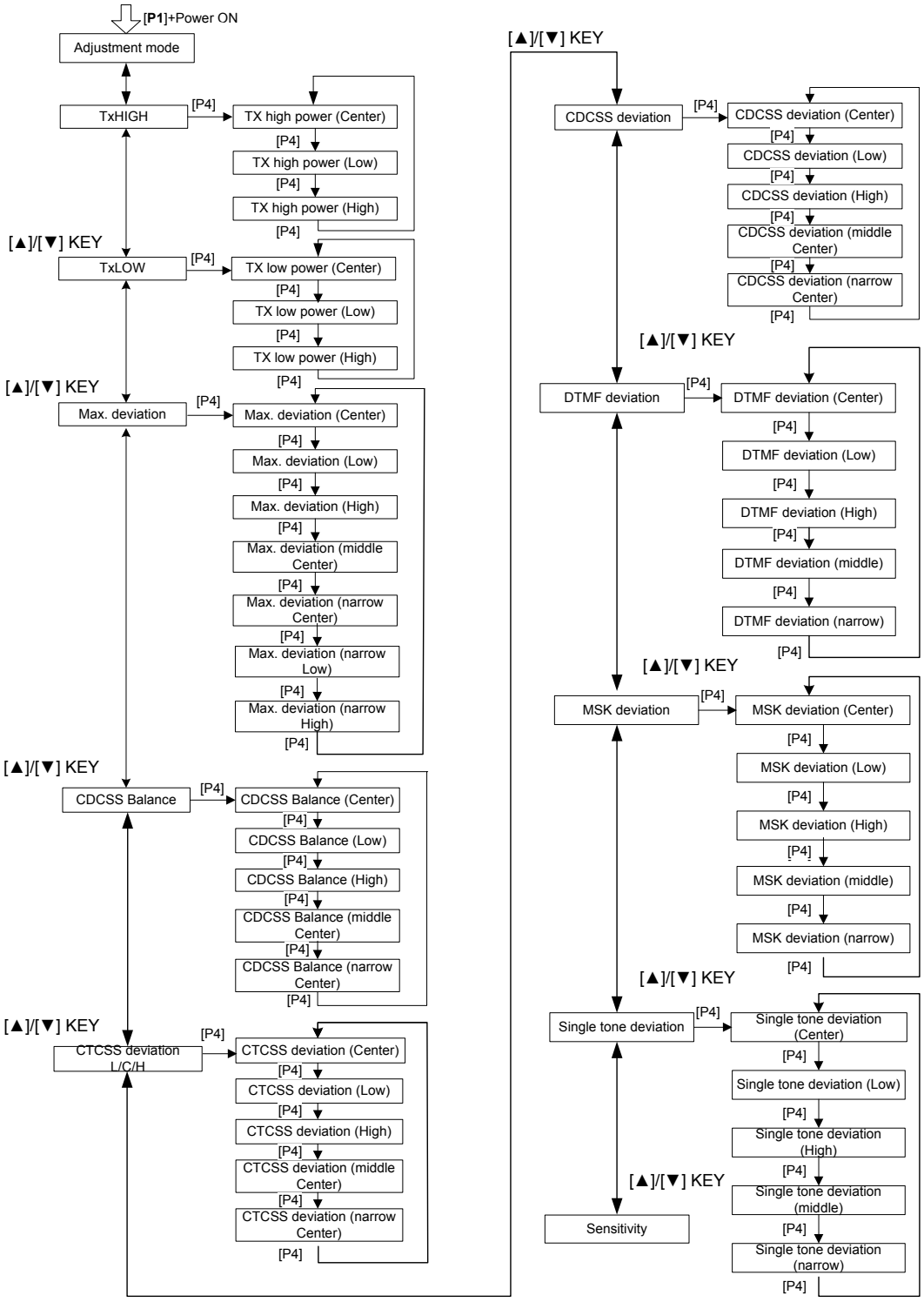
Tuning Item	Tuning Item Display	Wideband/ Narrowband	Frequency	Sub-item Display	Description
Tx Power	TXHIGH	High Power W	Center	_C ***	No signaling
			Low	_L ***	No signaling
			High	_H ***	No signaling
	TXLOW	Low Power W	Center	_C ***	No signaling
			Low	_L ***	No signaling
			High	_H ***	No signaling
Maximum Frequency Deviation	MAXDEV	W	Center	_C ***	No signaling
			Low	_L ***	No signaling
			High	_H ***	No signaling
		M	Center	M_C ***	No signaling
		N	Center	N_C ***	No signaling
			Low	N_L ***	No signaling
			High	N_H ***	No signaling
CDCSS Balance	CDCSSBAL	W	Center	_C ***	100Hz square wave
			Low	_L ***	100Hz square wave
			High	_H ***	100Hz square wave
		M	Center	M_C ***	100Hz square wave
		N	Center	N_C ***	100Hz square wave

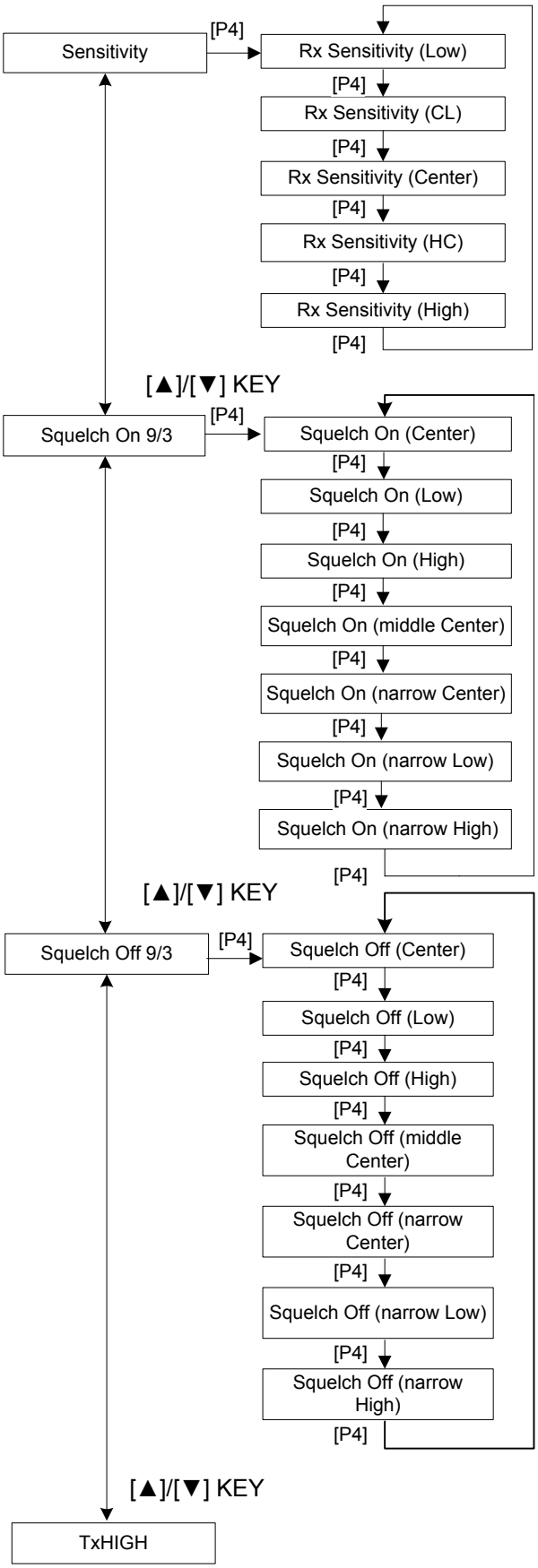
CTCSS Deviation	CTCL_DEV	W	Center	_C ***	CTCSS: 67.0Hz
			Low	_L ***	CTCSS: 67.0Hz
			High	_H ***	CTCSS: 67.0Hz
		M	Center	M_C ***	CTCSS: 67.0Hz
		N	Center	N_C ***	CTCSS: 67.0Hz
	CTCC_DEV	W	Center	_C ***	CTCSS: 151.4Hz
			Low	_L ***	CTCSS: 151.4Hz
			High	_H ***	CTCSS: 151.4Hz
		M	Center	M_C ***	CTCSS: 151.4Hz
		N	Center	N_C ***	CTCSS: 151.4Hz
	CTCH_DEV	W	Center	_C ***	CTCSS: 254.1Hz
			Low	_L ***	CTCSS: 254.1Hz
			High	_H ***	CTCSS: 254.1Hz
		M	Center	M_C ***	CTCSS: 254.1Hz
		N	Center	N_C ***	CTCSS: 254.1Hz
CDCSS Deviation	CDCSS_DEV	W	Center	_C ***	CDCSS: 023N
			Low	_L ***	CDCSS: 023N
			High	_H ***	CDCSS: 023N
		M	Center	M_C ***	CDCSS: 023N
		N	Center	N_C ***	CDCSS: 023N
DTMF Deviation	DTMFDEV	W	Center	_C ***	DTMF: 9
			Low	_L ***	DTMF: 9
			High	_H ***	DTMF: 9
		M	Center	M_C ***	DTMF: 9
		N	Center	N_C ***	DTMF: 9
MSK Deviation	MSKDEV	W	Center	_C ***	0XAAA…
			Low	_L ***	0XAAA…
			High	_H ***	0XAAA…
		M	Center	M_C ***	0XAAA…
		N	Center	N_C ***	0XAAA…
Single Tone Deviation	TONEDEV	W	Center	_C ***	1KHz
			Low	_L ***	1KHz
			High	_H ***	1KHz
		M	Center	M_C ***	1KHz
		N	Center	N_C ***	1KHz
RX Sensitivity	SENSITVI	-	Low	_L ***	No signaling, SQL off
		-	Low-center	_LC ***	No signaling, SQL off
		-	Center	_C ***	No signaling, SQL off
		-	High-center	_CH ***	No signaling, SQL off
		-	High	_H ***	No signaling, SQL off

Squelch On Level	OPENSQL9	SQL 9 W	Center	_C ***	No signaling
			Low	_L ***	No signaling
			High	_H ***	No signaling
		SQL 9 M	Center	M_C ***	No signaling
		SQL 9 N	Center	N_C ***	No signaling
			Low	N_L ***	No signaling
			High	N_H ***	No signaling
	OPENSQL3	SQL 3 W	Center	_C ***	No signaling
			Low	_L ***	No signaling
			High	_H ***	No signaling
		SQL 3 M	Center	M_C ***	No signaling
		SQL 3 N	Center	N_C ***	No signaling
			Low	N_L ***	No signaling
			High	N_H ***	No signaling
Squelch Off Level	CLOSSQL9	SQL 9 W	Center	_C ***	No signaling
			Low	_L ***	No signaling
			High	_H ***	No signaling
		SQL 9 M	Center	M_C ***	No signaling
		SQL 9 N	Center	N_C ***	No signaling
			Low	N_L ***	No signaling
			High	N_H ***	No signaling
	CLOSSQL3	SQL 3 W	Center	_C ***	No signaling
			Low	_L ***	No signaling
			High	_H ***	No signaling
		SQL 3 M	Center	M_C ***	No signaling
		SQL 3 N	Center	N_C ***	No signaling
			Low	N_L ***	No signaling
			High	N_H ***	No signaling

2.4 Flow Chart

You can perform tuning in the following steps:

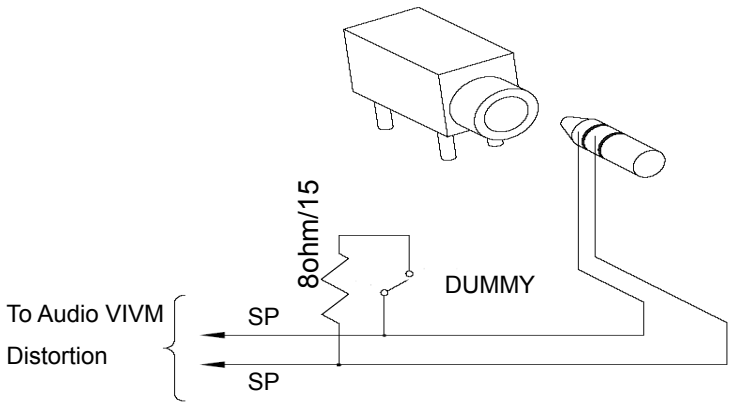



Sensitivity
[P4]
Rx Sensitivity (Low)
[P4]
Rx Sensitivity (CL)
[P4]
Rx Sensitivity (Center)
[P4]
Rx Sensitivity (HC)
[P4]
Rx Sensitivity (High)
[P4]
[▲]/[▼] KEY
Squelch On 9/3
[P4]
Squelch On (Center)
[P4]
Squelch On (Low)
[P4]
Squelch On (High)
[P4]
Squelch On (middle Center)
[P4]
Squelch On (narrow Center)
[P4]
Squelch On (narrow Low)
[P4]
Squelch On (narrow High)
[P4]
[▲]/[▼] KEY
Squelch Off 9/3
[P4]
Squelch Off (Center)
[P4]
Squelch Off (Low)
[P4]
Squelch Off (High)
[P4]
Squelch Off (middle Center)
[P4]
Squelch Off (narrow Center)
[P4]
Squelch Off (narrow Low)
[P4]
Squelch Off (narrow High)
[P4]
[▲]/[▼] KEY
TxHIGH

3. Instruments for Tuning

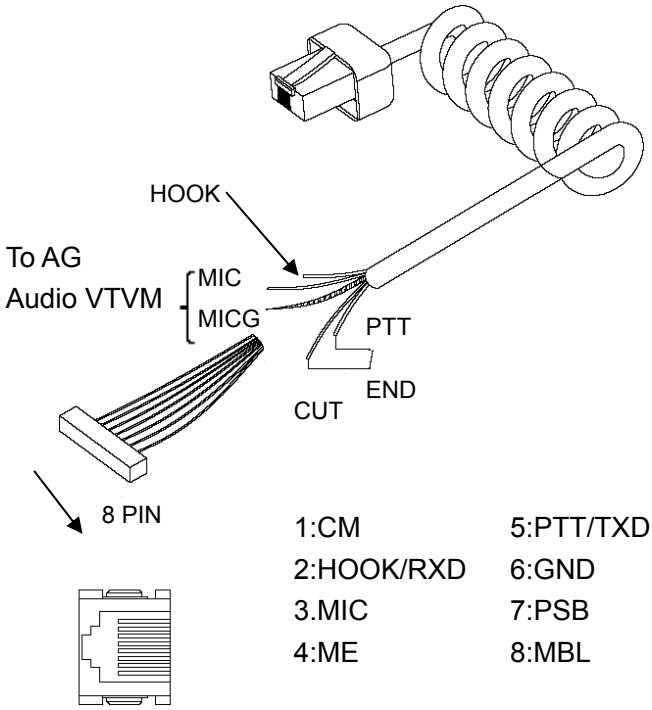
Instrument	Method	Specifications
Standard Signal Generator (SSG)	Frequency Range Modulation Method Power Output	VHF: 136-174 MHz; UHF: 400-470 MHz; Frequency modulation and external modulation 0.1uV and above
Power Meter	Input Impedance Frequency Range Measurement Capability	50Ω VHF: 136-174 MHz; UHF: 400-470 MHz About 50W/45W (high power)/5W (low power)
Tuning Meter	Frequency Range	VHF: 136-174 MHz; UHF: 400-470 MHz
Digital Voltmeter (DVM)	Measuring Range Accuracy	1 to 20V DC High input impedance for minimum circuit load
Oscilloscope		DC to 30MHz AC
High Sensitivity Frequency Counter	Frequency Range Frequency Stability	10Hz to 600MHz 0.2ppm or less
Ammeter		13A or more
AF Vacuum Tube Voltmeter (AF VTVM)	Frequency Range Voltage Range	50Hz to 10kHz 3mV to 3V
Audio Generator (AG)	Frequency Range Power Output	50Hz to 5kHz 0 to 1V
Distortion Meter	Measurement Capability Input Level	3% or less (1KHz) 50mV to 10Vrms
4Ω Dummy Load		About 4Ω, 20W
Regulated Power Supply		13.6V, about 20A (adjustable within 9~20V) Applicable when an antenna is used.

3.1 Test Cable for Speaker Output



3.2 Test Cable for Microphone Input

The following test cable is recommended:



4. Tuning Instructions

The mobile radio can be tuned manually or through PC programming software. For information on manual tuning, see “Software Specifications -> Panel Tuning Mode”.

Instruments:

Communication Test Set	1 set	Digital Voltmeter	1 set
Spectrum Analyzer	1 set	Power Meter	1 set
20A/30V Power Supply	1 set	Signal Cable (with dummy load)	1 set

Method and Procedure:

1) Downloading

- Connect the mobile radio with PC via programming cable; and turn the radio on.
- Click “Download” on software interface.
- Click “Exit” when download is completed.
- Turn the radio off and remove the programming cable.

2) Initialization

It’s necessary to set the frequency and initialize the mobile radio before tuning, because there is no

required information in EEPROM when the radio is delivered from the factory.

- Turn on the power while holding down **P2**, and press **P4** after the LCD displays “DESTINA + initialized value” (Refer to “Model No.” in the Frequency Table).
- Initialization is done when the red LED on the front panel goes out.

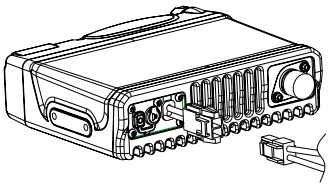
3) Tuning

Some items can be tuned in conventional mode and the others in manual tuning mode.

- Turn on the power to enter conventional mode by default.
- Turn the radio off and restart it by holding down **P1**; then the radio will enter manual tuning mode. The tuning items are displayed on the LCD.
- Frequency Table

Model No.	RX/TX	1 (C)	2 (L)	3 (H)	4	5	6	7	8
0	RX(MHz)	155.15	136.15	173.85	145.55	164.55	155.00	155.20	155.40
(V)	TX(MHz)	155.00	136.00	174.00	145.50	164.50	155.00	155.20	155.40
1	RX(MHz)	435.15	400.15	469.85	417.55	452.55	435.00	435.20	435.40
(U1)	TX(MHz)	435.00	400.00	470.00	417.50	452.50	435.00	435.20	435.40

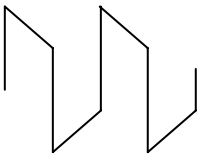
VCO Tuning

<table>
<tr><th rowspan="2">Item</th><th rowspan="2">Condition</th><th colspan="2">Measurement</th><th colspan="2">Tuning</th><th rowspan="2">Specification/ Remarks</th></tr>
<tr><th>Test Instrument</th><th>Terminal</th><th>Part</th><th>Method</th></tr>
<tr><td>1. Power Supply</td><td>13.6V DC</td><td colspan="5"> 
Note: 1. This radio can be installed in negative ground electrical systems only. Reverse polarity will cause the cable fuse to blow. Check the vehicle ground polarity before installation.
2. If DC power is to be controlled by the vehicle ignition switch, a switch relay should be used to switch the positive power lead. The vehicle ignition switch then controls DC to the relay coil.</td></tr>
<tr><td rowspan="3">2. VCO Lock Voltage (TX)</td><td>1. CH: TX HI</td><td rowspan="2">Digital Voltmeter</td><td rowspan="2">CV</td><td rowspan="2">TC701</td><td>6.1V±0.1V</td><td>U1</td></tr>
<tr><td></td><td></td><td>6.0V±0.1V</td><td>V</td></tr>
<tr><td>2. CH: TX LO</td><td>Check</td><td>>1.0V</td></tr>
</table>

3. VCO Lock Voltage (RX)	1. CH: RX HI	Digital Voltmeter	CV	TC702	6.0V±0.1V	U1
						V
	2. CH: RX LO				Check	>1.0V

Transmitter Tuning

Item	Condition	Measurement		Tuning		Specification/ Remarks
		Test Instrument	Terminal	Part	Method	
4. TX Frequency	Switch to CH_4 (Do not enter any tuning item).	Communication Test Set	ANT	Adjust VR801.	Adjust Channel frequency.	Error <50Hz
5. TX Power	Each channel corresponds to a specific TX frequency. Enter the item "TXHIGH" and "TXLOW" in turn, and press **P4** to enter "_C", "_L" or "_H" to tune the high or low power.	Communication Test Set Ammeter	ANT	Adjust software settings; press **P4** to save and enter the next item. Note: VR101 is required to be tuned for VHF high power (not required for UHF).	High Power: PO=50W(V) PO=45W(U) I≤13A	Check high power
					Low Power: PO=5±0.5W I≤5.0A	Check low power
6. Maximum Frequency Deviation	Each channel corresponds to a specific TX frequency. Enter the tuning item "MAXDEV" to adjust among "_C", "_L", "_H", "M_C", "N_C", "N_L" and "N_H".	Radio Communication Test Set FILTER: 0.05-15KHz AF:1KHz 75mV	ANT MIC Jack	Adjust software settings; press **P4** to save and enter the next item.	Check deviation at CH L/C/H: 4.0±0.2KHz (W)	"_C", "_L" and "_H" for wideband
					Check deviation at CH L/C/H: 3.2±0.2KHz (M)	"M_C" for mediumband
					Check deviation at CH L/C/H: 2.0.0±0.2KHz (N)	"N_C"," N_L" and "N_H" for narrowband
7. Modulation Sensitivity	Each channel corresponds to a specific TX frequency.	Communication Test Set Filter: 0.05-15KHz AF: 1KHz 7.5mV	ANT MIC Jack		Check deviation: 2.7KHz-3.4KHz (W) 2.2KHz-2.7KHz (M) 1.3KHz-1.7KHz (N)	Check
8. Modulation Distortion					≤5%	

9. CDCSS Balance	Each channel corresponds to a specific TX frequency. Enter the tuning item “CDCSSBAL”, and press **P4** to adjust among “_C”, “_L”, “_H”, “M_C” and “N_C”.	Communication Test Set Filter <20Hz-300Hz AF: OFF	ANT	Use ▲/▼ to adjust software settings; press **P4** to save and enter the next item.		“_C”, “_L” and “_H” indicate the widebands respectively of center, low and high frequencies ; “M_C” indicates the mediumband of center frequency (20K); “N_C” indicates the narrowband of center frequency (12.5K).
10. CTCSS Deviation	Each channel corresponds to a specific TX frequency. Enter tuning items “CTCL_DEV”,”CTCC_DEV” and “CTCH_DEV” (to tune the CTCSS at 67Hz/151.4Hz/254.1Hz). Press **P4** to adjust among “_C”, “_L”, “_H”, “M_C” and “N_C”.	Communication Test Set Filter <20Hz-300Hz AF: OFF	ANT	Use ▲/▼ to adjust software settings; press **P4** to save and enter the next item.	Adjust the deviation to 0.75KHz±0.15KHz (W) 0.60KHz±0.15KHz (M) 0.37KHz±0.15KHz (N)	“_C”, “_L” and “_H” indicate the widebands of each frequency; “M_C” indicates the medium band; “N_C” indicates the narrowband of center frequency.
11. CDCSS Deviation	Each channel corresponds to a specific TX frequency. Enter tuning item “CDCSS_DEV”, and press **P4** to adjust among “_C”, “_L”, “_H”, “M_C” and “N_C”.	Communication Test Set Filter <20Hz-300Hz AF: OFF	ANT	Use ▲/▼ to adjust software settings; press **P4** to save and enter the next item.	Adjust the deviation to 0.75KHz±0.15KHz (W) 0.60KHz±0.15KHz (M) 0.37KHz±0.15KHz (N)	“_C”, “_L” and “_H” indicate the widebands of each frequency; “M_C” indicates mediumband; “N_C” indicates the narrowband of center frequency.

12. DTMF Deviation	Each channel corresponds to a specific TX frequency. Enter tuning item “DTMFDEV”, and press **P4** to adjust among “_C”, “_L”, “_H”, “M_C” and “N_C”.	Communication Test Set Filter 300Hz--3KHz AF: OFF	ANT	Use ▲/▼ to adjust software settings; press **P4** to save and enter the next item.	3.0KHz±0.2KHz (W) 2.4KHz±0.2KHz (M) 1.5KHz±0.2KHz (N)	“_C”, “_L” and “_H” indicate the widebands of each frequency; “M_C” indicates the medium band; “N_C” indicates the narrowband of center frequency.
13. MSK Deviation	Each channel corresponds to a specific TX frequency. Enter tuning item “MSKDEV”, and press **P4** to adjust among “_C”, “_L”, “_H”, “M_C” and “N_C”.	Communication Test Set Filter 300Hz--3KHz AF: OFF	ANT	Use ▲/▼ to adjust software settings; press **P4** to save and enter the next item.	3.0KHz±0.2KHz (W) 2.4KHz±0.2KHz (M) 1.5KHz±0.2KHz (N)	“_C”, “_L” and “_H” indicate the widebands of each frequency; “M_C” indicates the medium band; “N_C” indicates the narrowband of center frequency.
14. Single Tone Deviation	Each channel corresponds to a specific TX frequency. Enter tuning item “TONEDEV”, and press **P4** to adjust among “_C”, “_L”, “_H”, “M_C” and “N_C”.	Communication Test Set Filter 300Hz--3KHz AF: OFF	ANT	Use ▲/▼ to adjust software settings; press **P4** to save and enter the next item.	Adjust the deviation to 3.0KHz±0.2KHz (W) 2.4KHz±0.2KHz (M) 1.5KHz±0.2KHz (N)	“_C”, “_L” and “_H” indicate the widebands of each frequency; “M_C” indicates the medium band; “N_C” indicates the narrowband of center frequency.
15. TX S/N	Each channel corresponds to a specific TX frequency.	Communication Test Set Filter 0.3-3KHz AF: 1KHz 7.5Mv DEV: 3KHz	ANT	Check	S/N≥45 (W) S/N≥40 (N)	

Receiver Tuning

Item	Condition	Measurement		Tuning		Specification/ Remarks
		Test Instrument	Terminal	Part	Method	
16. Sensitivity Adjustment	Enter “SENSITIVI”. Each channel has a specific RX frequency F. Press **F4** to enter “_L”, “LC”, “_C”, “_CH” and “_H”.	Communication Test Set	ANT	Use ▲/▼ to adjust the software value, and then press **P4** to save and enter the next item.	1. Adjusting sensitivity: SINAD> 12dB (when SSG outputs -118dBm) 2. Checking spurious: when F is ±24.975MHz, set SSG output to -30dBm (SINAD< 12dB).	
17. Maximum Volume	Freq: RX Center; go to CH_1 (C), which corresponds to a specific frequency.	Communication Test Set SSG Output: -47dBm MOD: 1KHz DEV: ±3KHz(W) ±1.5KHz (N) Filter: 0.3-3.0KHz	ANT SP Jack	K301		Check the maximum volume: 4.4V-6.0V
18. Sensitivity Check	1. Test mode CH: RX Center; manually switch to CH_1 (C)	Communication Test Set SSG Output: -118dBm MOD: 1KHz DEV: 3KHz(W) 2.4KHz（M) 1.5KHz(N) Filter: 0.3-3.0KHz	ANT SP Jack	Switch between wideband and narrowband (turn power on while holding down **P1** to enter Channel Set Mode).	Adjust K301 to provide rated volume output.	SINAD: 12dB or above
	2. Test mode CH: RX LO; manually switch to CH_2 (L)					
	3. Test mode CH: RX HI; manually switch to CH_3 (H)					

19. Squelch Open	Enter tuning items “OPEN SQL9” and “OPENSQL3” in turn, and then press **P4** to adjust among “_C”, “_L”, “_H”, “M_C”, “N_C”, “N_L” and “N_H”.	Communication Test Set (Level 3) SSG Output: -120dBm (-117.5 dBm for M_C in UHF) (Level 9) SSG Output: -114dBm (-111.5 dBm for M_C in UHF)	ANT SP Jack	Adjust the software settings.	Press **P3** and **P4** to save (no need to adjust software settings at Level 3 and Level 9).	Press **P3** and **P4** in turn for the CPU to read and write squelch level. (Note: Do not press **P4** until the LED glows green after **P3** is pressed.)
20. Squelch Close	Enter tuning items “CLOSE SQL9” and “CLOSE SQL3” in turn, and then press **P4** to adjust among “_C”, “_L”, “_H”, “M_C”, “N_C”, “N_L” and “N_H”.	Communication Test Set (Level 3) SSG Output: -122dBm (-119.5 dBm for M_C in UHF) (Level 9) SSG Output: -116dBm (-113.5 dBm for M_C in UHF)			Press **P3** and **P4** to save (no need to adjust software settings at Level 3 and Level 9).	Press **P3** and **P4** in turn for the CPU to read and write squelch level. (Note: Do not press **P4** until the LED glows green after **P3** is pressed.)
21. Distortion	Test Mode CH: RX Center	Communication Test Set SSG Output: -47dBm	ANT SP Jack	Filter: 0.3-3.0KHz	Check	DIS≤5%
22.S/N						S/N≥45(W) S/N≥40(N)

Note: The radio must be covered with aluminum chassis during adjustment of sensitivity, TX power, signaling waveform, frequency deviation and RX squelch; the RF power meter must be connected to the antenna connector during transmission; and the SINAD meter with a 16ohm load must be connected to the external speaker jack.

Terminal Function

1. Display Unit

Pin No.	Name	Description
J301 (To MIC Jack)		
1	CM	Serial data input for keypad MIC
2	HOOK/RXD	Hook signal/serial data input
3	MIC	MIC signal input
4	ME	MIC ground
5	PTT/TXD	PTT signal input/ Serial data output
6	GND	Ground
7	PSB	Power output upon power switch (13.6V±15%).
8	MBL	MIC backlight control signal output H: On, L: Off.
J303 (To Main Board)		
1	VCC	+5V
2	BS	Power output upon power switch (13.6V±15%)
3	VCC	+5V
4	BS	Power output upon power switch (13.6V±15%)
5	NC	
6	MICDAT	Serial data input for keypad MIC
7	NC	
8	ME	MIC ground
9	MIC	MIC signal output
10	GND	Ground
11	VO	Audio input after tuned by K301
12	PSW	Power switch control signal output
13	RXD2	Serial data output
14	TXD2	Serial data output
15	VI	Audio output after tuned by K301
16	TYPE	Model select
17	P4	P4 signal output
18	P3	P3 signal output
19	P2	P2 signal output
20	P1	P1 signal output
21	SLED	Scan indicator
22	PLED	Low power indicator
23	RLED	TX indicator control
24	GLED	RX indicator control
25	LED1	Channel display control
26	LED7	Channel display control
27	LED0	Channel display control
28	LED2	Channel display control

29	LED5	Channel display control
30	LED3	Channel display control
31	LED6	Channel display control
32	LED4	Channel display control

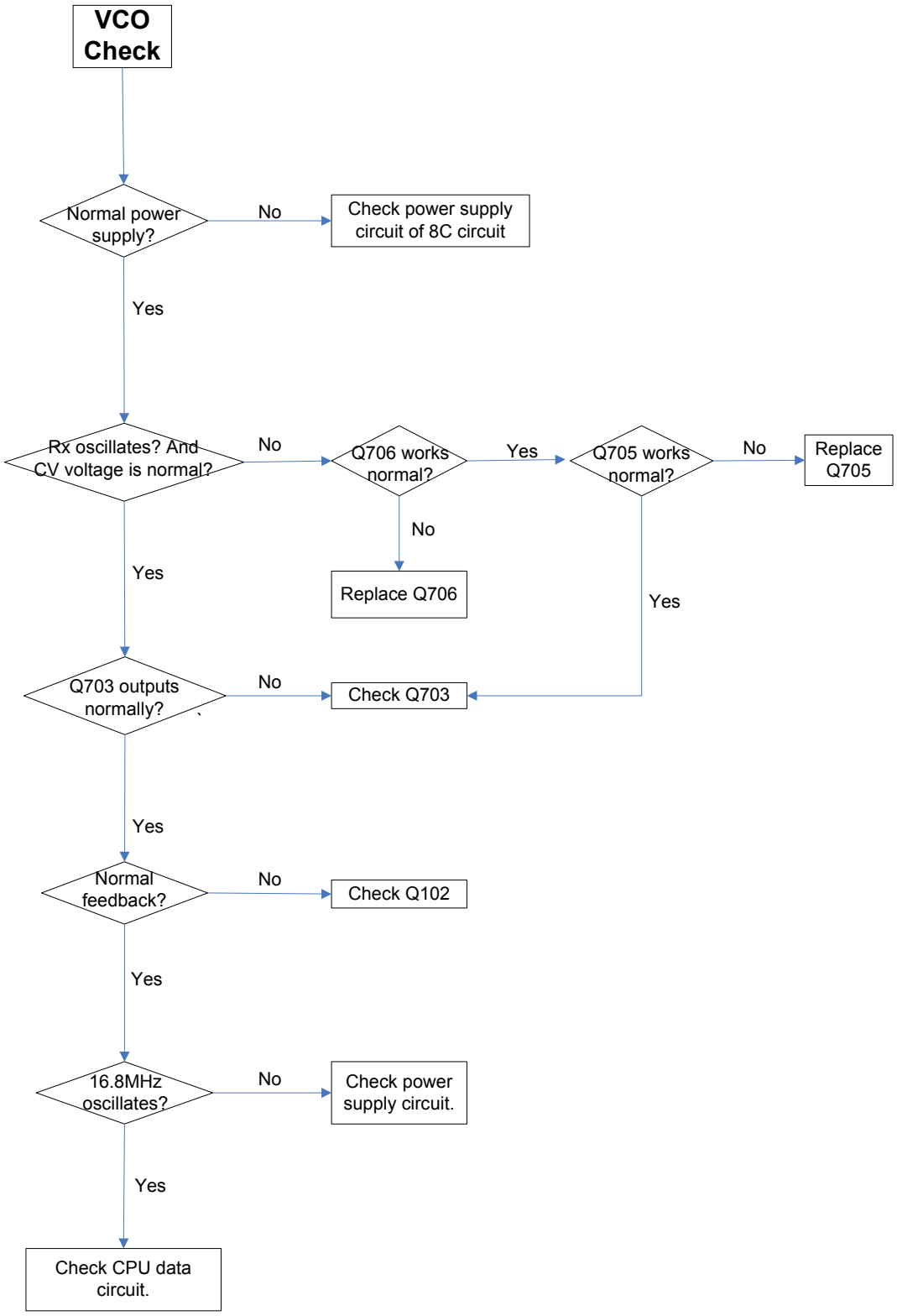
2. Tx-Rx Unit

Pin No.	Name	Description
J501 (To Display Unit)		
1	VCC	+5V
2	BS	Power output upon power switch (13.6V±15%)
3	VCC	+5V
4	BS	Power output upon power switch (13.6V±15%)
5	NC	NC
6	MICDAT	Serial data input for keypad MIC
7	NC	NC
8	ME	MIC ground
9	MIC	MIC signal input
10	GND	Ground
11	VO	Audio output after tuned by K301
12	PSW	Power switch control signal output
13	RXD2	Serial data output
14	TXD2	Serial data input
15	VI	Audio input after tuned by K301
16	TYPE	Model select
17	P4	P4 signal output
18	P3	P3 signal output
19	P2	P2 signal output
20	P1	P1 signal output
21	SLED	Scan indicator
22	PLED	Low power indicator
23	RLED	TX indicator control
24	GLED	RX indicator control
25	LED1	Channel display control
26	LED7	Channel display control
27	LED0	Channel display control
28	LED2	Channel display control
29	LED5	Channel display control
30	LED3	Channel display control
31	LED6	Channel display control
32	LED4	Channel display control
J504 (To Speaker)		
1	SP1	BTL Input for external speaker
2	SP2	BTL Input for external speaker

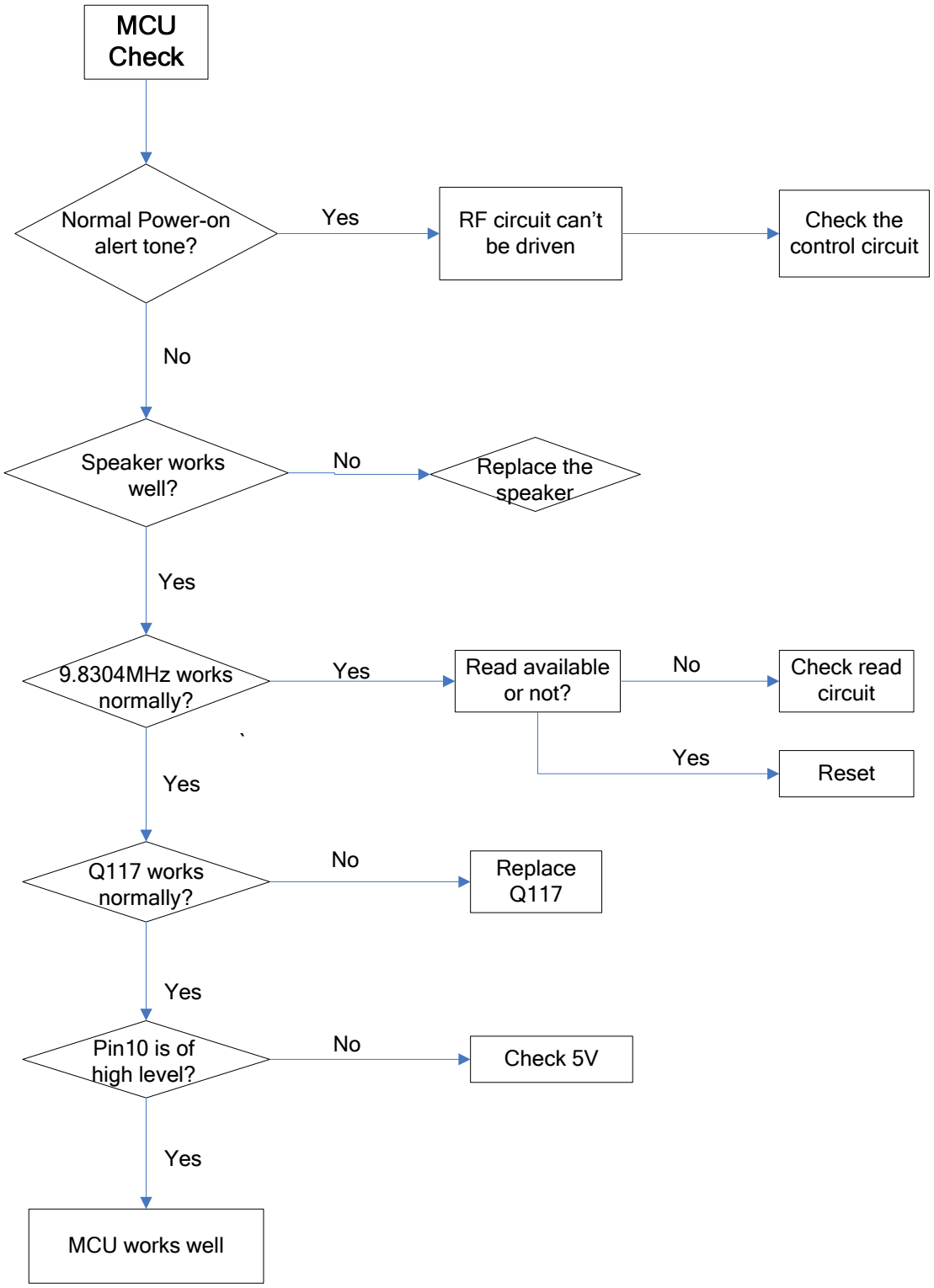
J503 (to Further Development Interface)		
1	TXD2	Serial data input
2	RXD2	Serial data output
3	MIC2	External MIC input
4	ME	External MIC ground
5	AF_O	RX audio output (300-3KHz, de-emphasized) (default)
	DI	Digital signal modulation input (optional)
6	PA1	SPEAKER1 signal output (optional)
	RSSI	RSSI detect (default)
7	PA2	SPEAKER2 signal output (optional)
	PCO	RF power control (default)
8	AUX1	Functions to be expanded (for AUX1 to AUX4):
9	AUX2	1. External PTT; 2. Data Transmission PTT; 3.Speaker Mute; 4.External Monitor;
10	AUX3	5. ▲ Key; 6. ▼ Key; 7. External Hook; 8. Emergency Call; 9. MIC Mute; 10. RX
11	AUX4	Carrier; 11. RX Audio; 12. Digital Modulation Input
12	DET	RX audio output, AK2346 (default)
	TI	Filtered CTCSS/CDCSS output (optional)
13	E	Ground
14	SB	13.6V power (default)
	5C	5V power, maximum current is 1A (optional)
15	IGN	Ignition sensor input

Troubleshooting Flow Chart

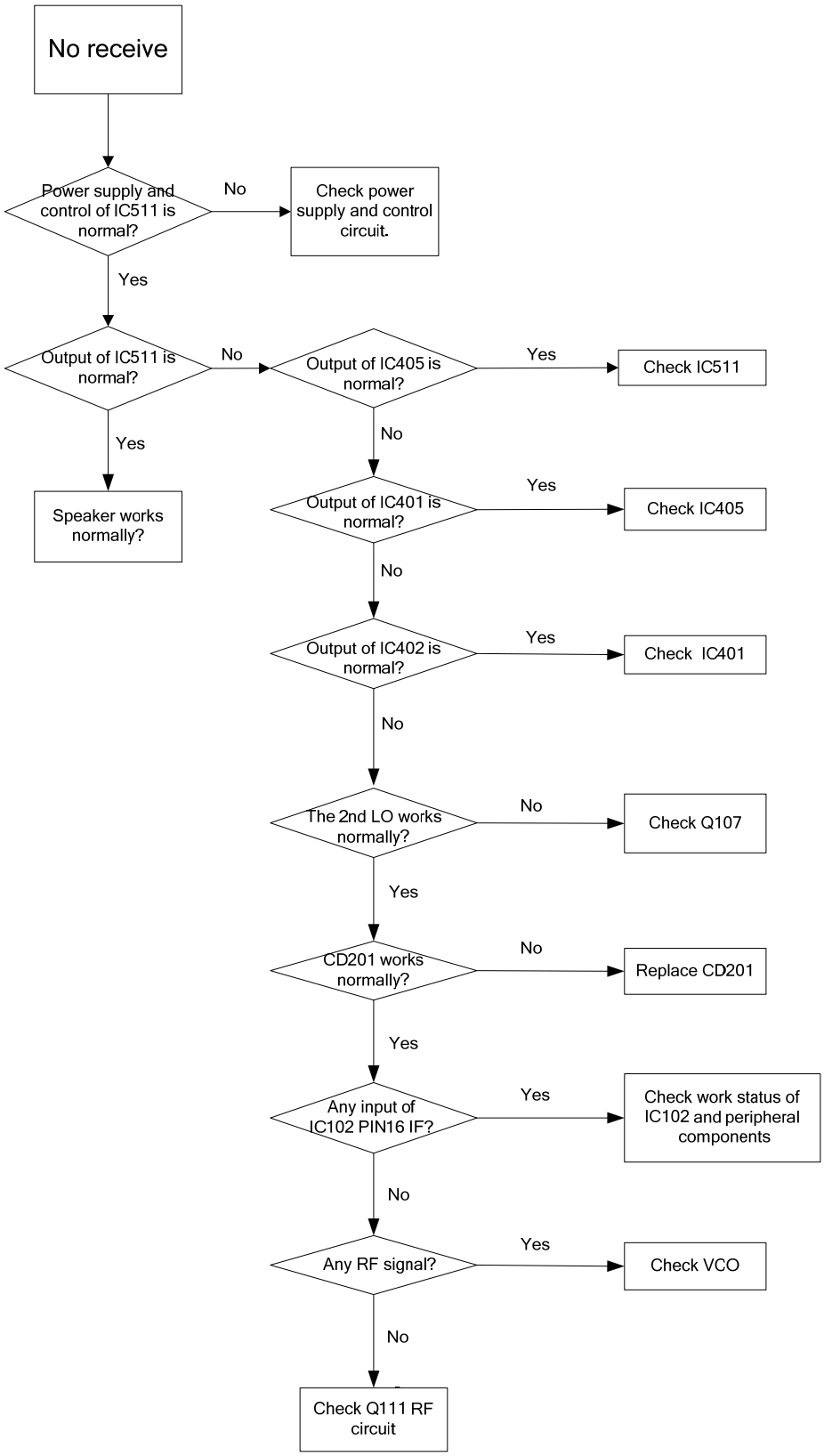
VCO



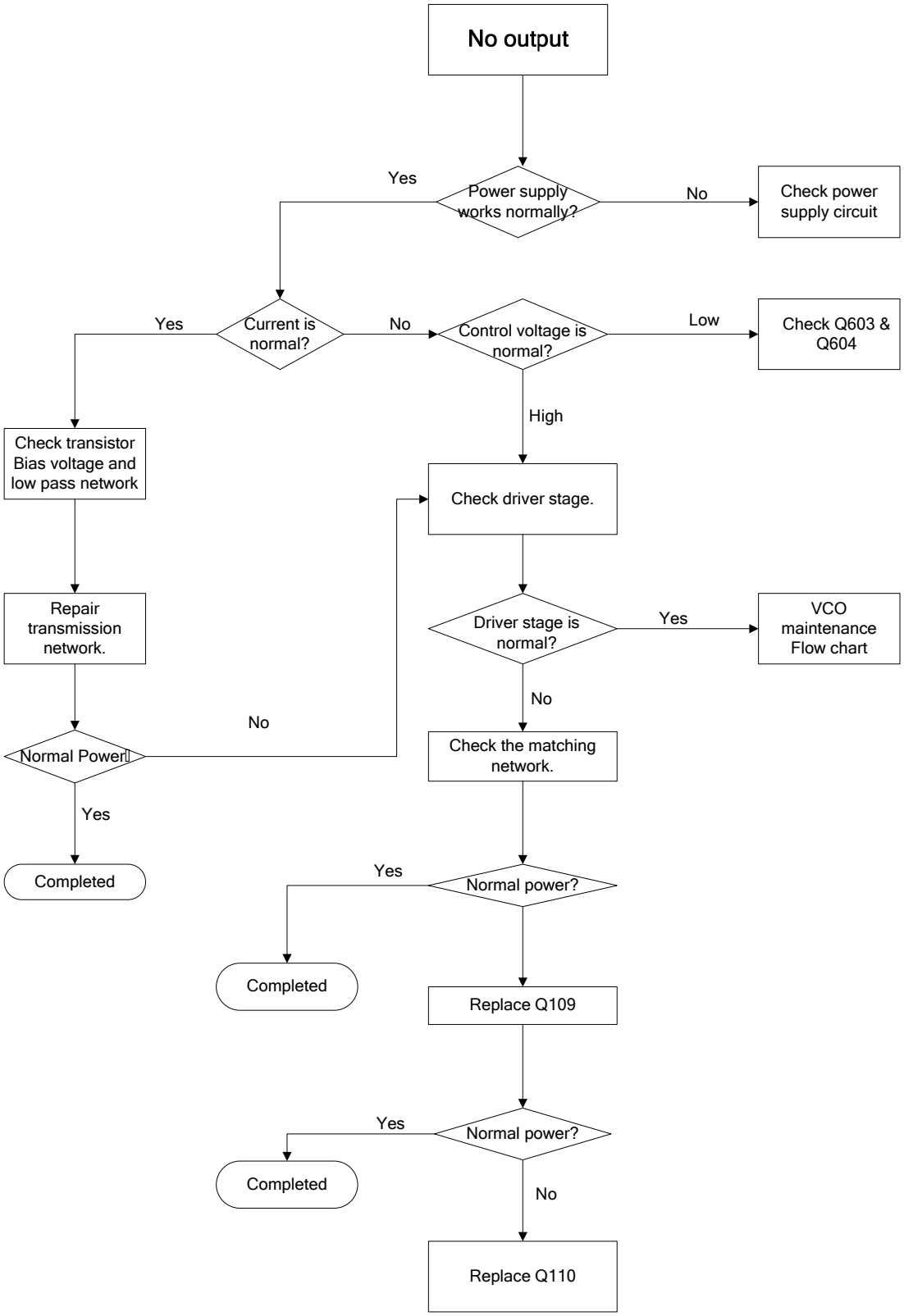
MCU


MCU Check
Normal Power-on alert tone?
Yes
RF circuit can't be driven
Check the control circuit
No
Speaker works well?
No
Replace the speaker
Yes
9.8304MHz works normally?
Yes
Read available or not?
No
Check read circuit
Yes
Reset
Yes
Q117 works normally?
No
Replace Q117
Yes
Pin10 is of high level?
No
Check 5V
Yes
MCU works well

Receive Circuit



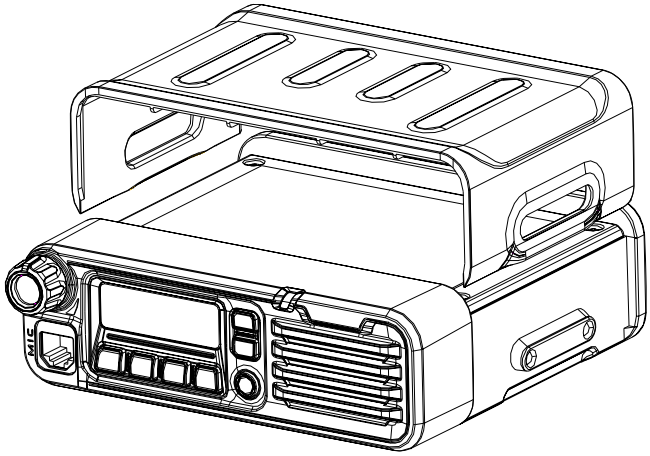
Transmit Circuit



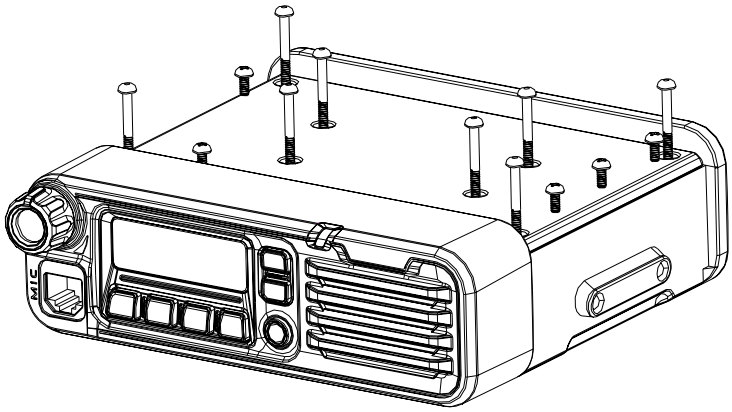
Disassembly and Re-assembly for Repair

Disassembly

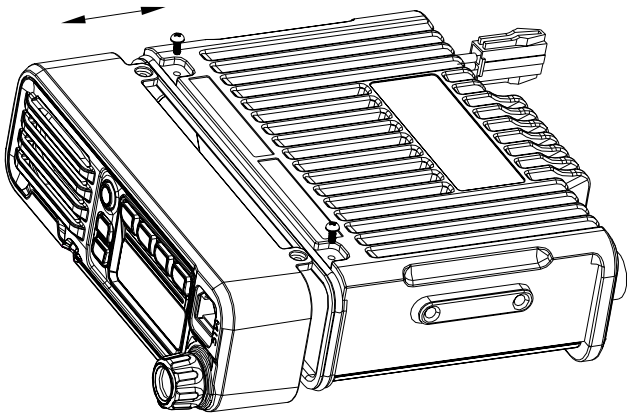
1. Power off the radio; disconnect the power cable and screw out the antenna.
2. Remove the upper cover.



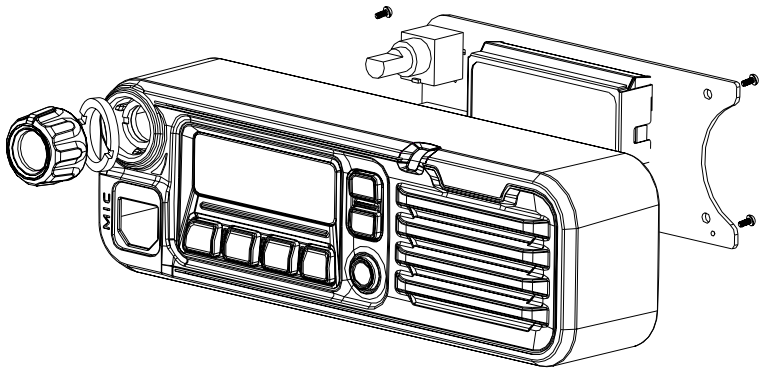
3. Loosen the eight locking screws; then remove the shield cover, and disconnect FFC and speaker cable which bind the front panel PCB and the main board PCB.



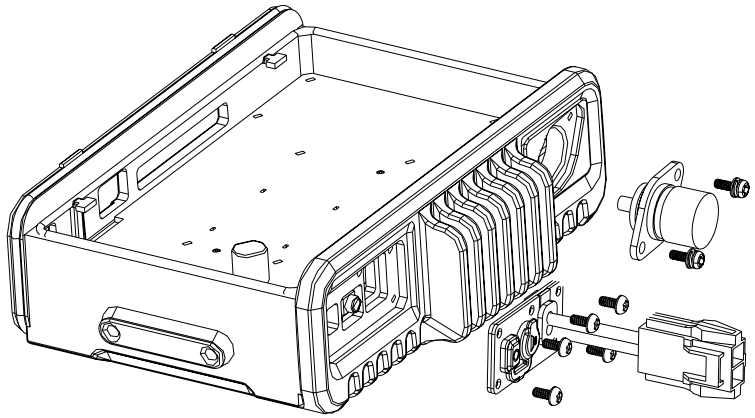
4. Loosen the two screws, and detach the front panel from the main unit.



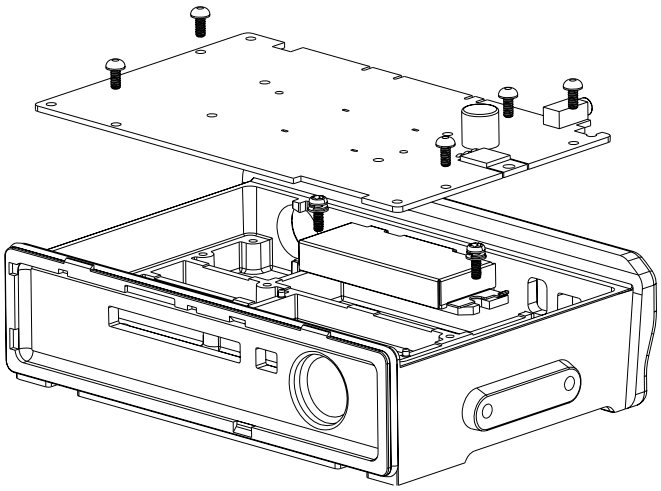
5. Pull out the Volume Control Knob, and screw out the copper nut from the potentiometer. Then loosen the four screws locking the front case, and take out the front panel PCB.



6. Use an electric iron and a screwdriver to disassemble the antenna connector, power cable, external board and water-proof ring on this board.

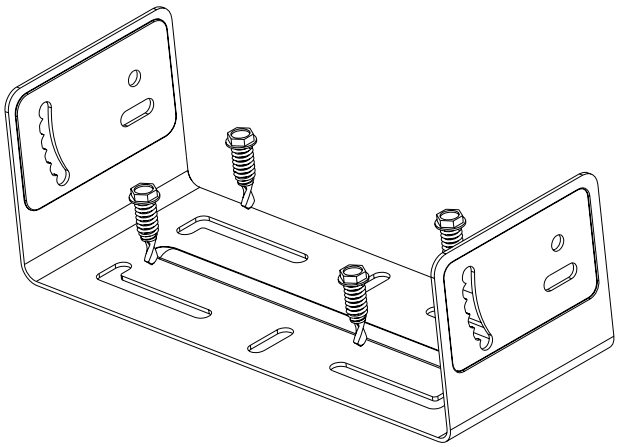


7. Loosen the screws locking the main board PCB and the PA module.

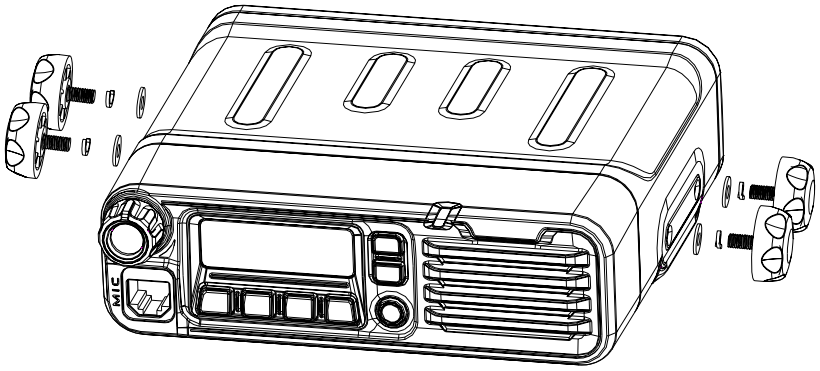


Assembly

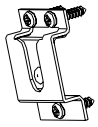
1. Fix the bracket (for main unit) by using four self-tapping screws.

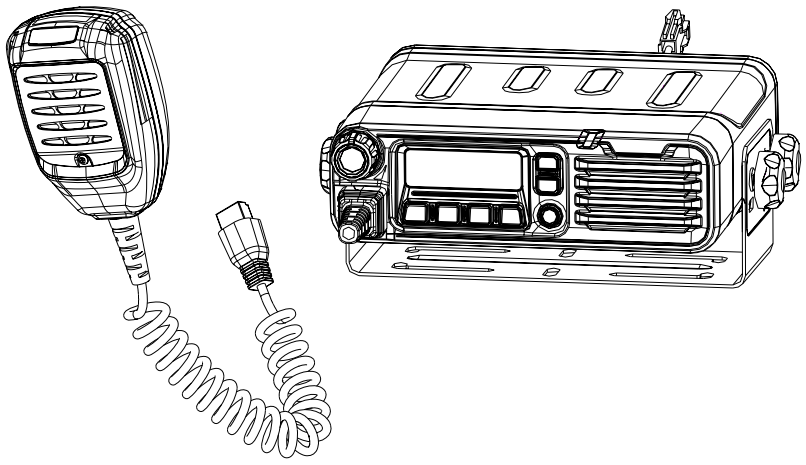


2. Fasten the four adjustment screws (each with one spring plate and one cushion).

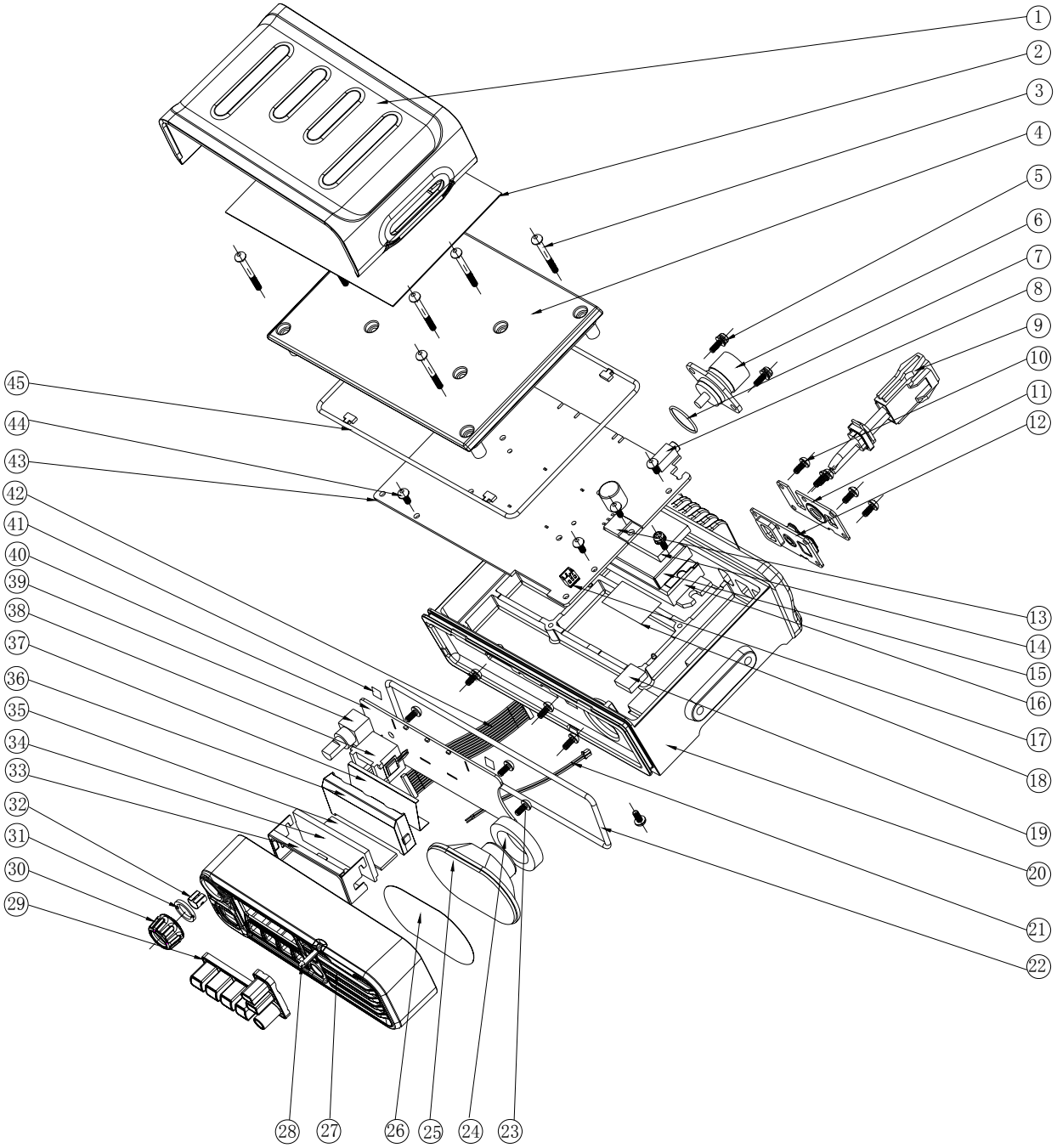


3. Plug the palm microphone into the jack (MIC); when the MIC is not in use, hang it on the hook.





Exploded View



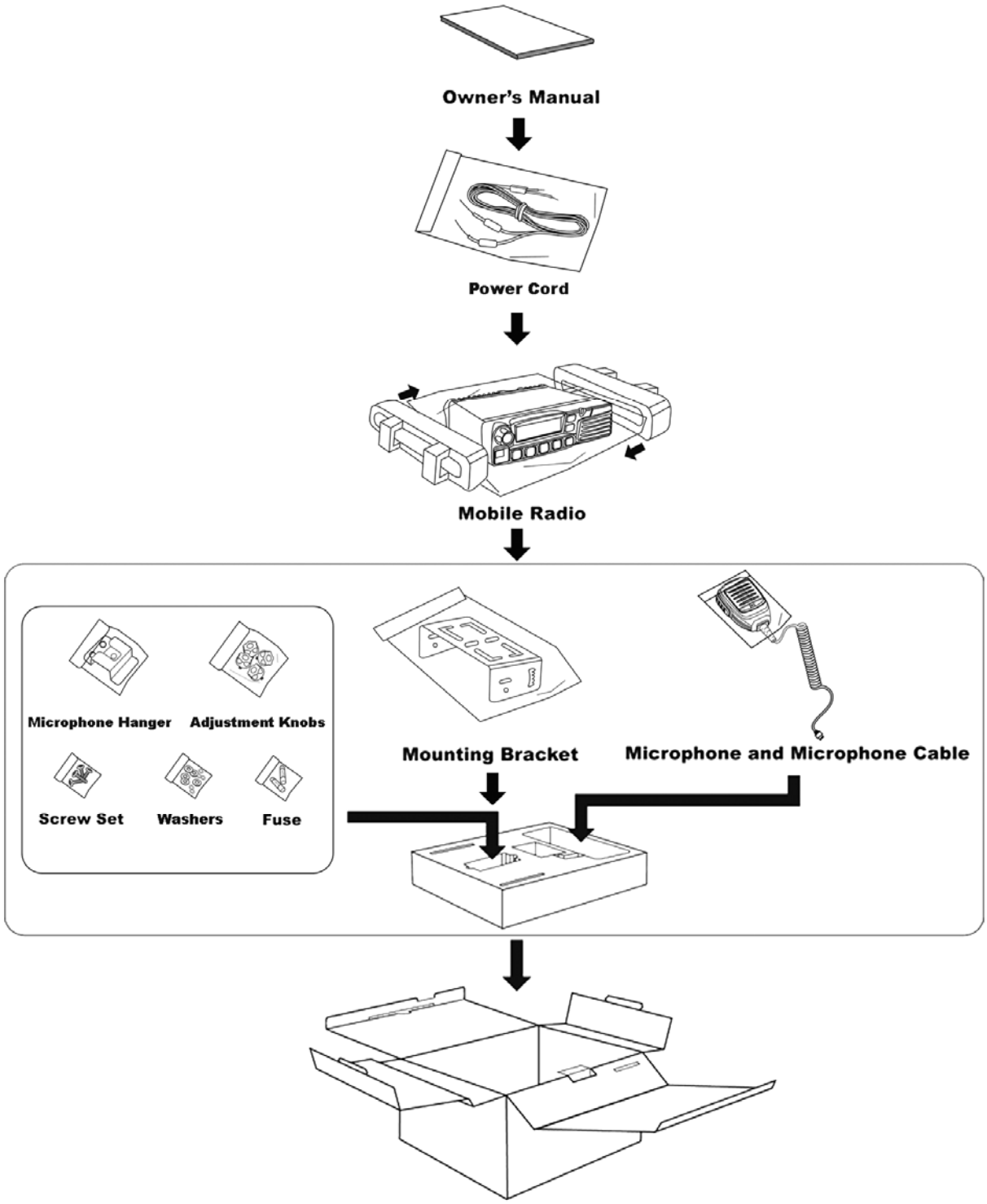
Parts List 2

No.	Material Number	Material Name	Qty.
1	6001010000100	Upper cover (RoHS)	1
2	7500171000000	Vibration-suction sponge (RoHS)	1
3	7102623020000	Self-tapping screw ST2.6*23mm (RoHS)	8
4	6300037000010	Shield cover for main unit (RoHS)	1
5	7102508000100	Machine screw M2.5*8.0mm (RoHS)	4
6	4405100001000	Antenna connector (RoHS)	1
7	6100393000000	Waterproof ring of antenna connector (RoHS)	1
8	5205000000280	Speaker jack (RoHS)	1
9	4200215000400	Power cable kit (RoHS)	1
10	7102606021000	Self-tapping screw ST2.6*6.0mm	7
11	6201186001010	External connection board (RoHS)	1
12	6100480100000	Waterproof ring of external connection board (RoHS)	1
13	3608002002090	Power management IC (RoHS)	1
14	7600028000000	Conductive fabric for shielding mask of PA module (RoHS)	1.5
15	6201190000010	Shielding mask of PA module (RoHS)	1
16	3601004000640	RF PA module (RoHS)	1
17	5202002100270	Board-to-cable connector (RoHS)	1
18	7600022000000	Copper foil (RoHS)	1
19	7500159000100	Heat sink silicone rubber (RoHS)	1
20	6300103000000	Aluminum chassis (RoHS)	1
21	4210150000100	Speaker cable (with plug) (RoHS)	1
22	6100478000000	Waterproof ring for front panel (RoHS)	1
23	7102310020010	Self-tapping screw ST2.3*10.0mm (RoHS)	3
24	7500259000000	Sponge cushion for speaker (RoHS)	1
25	5001210000390	Speaker (RoHS)	1
26	7400265000000	Speaker felt (RoHS)	1
27	6001013001000	Front panel kit (RoHS)	1
28	6000231000000	Light guide (RoHS)	1
29	6100443000000	Numeric keypad (RoHS)	1
30	6001012000000	Volume control knob (RoHS)	1
31	7209002000000	Nut M9*2.0mm (RoHS)	1
32	6201066000000	Inner lining for knob (RoHS)	1
33	6201374000000	LCD bracket (RoHS)	1
34	5110000000320	LCD (RoHS)	1
35	7600026000000	Conductive rubber connector (RoHS)	1
36	6000473000000	Light guide panel (RoHS)	1
38	7400144000000	Light reflector (RoHS)	1
38	5205000000260	Microphone jack (RoHS)	1

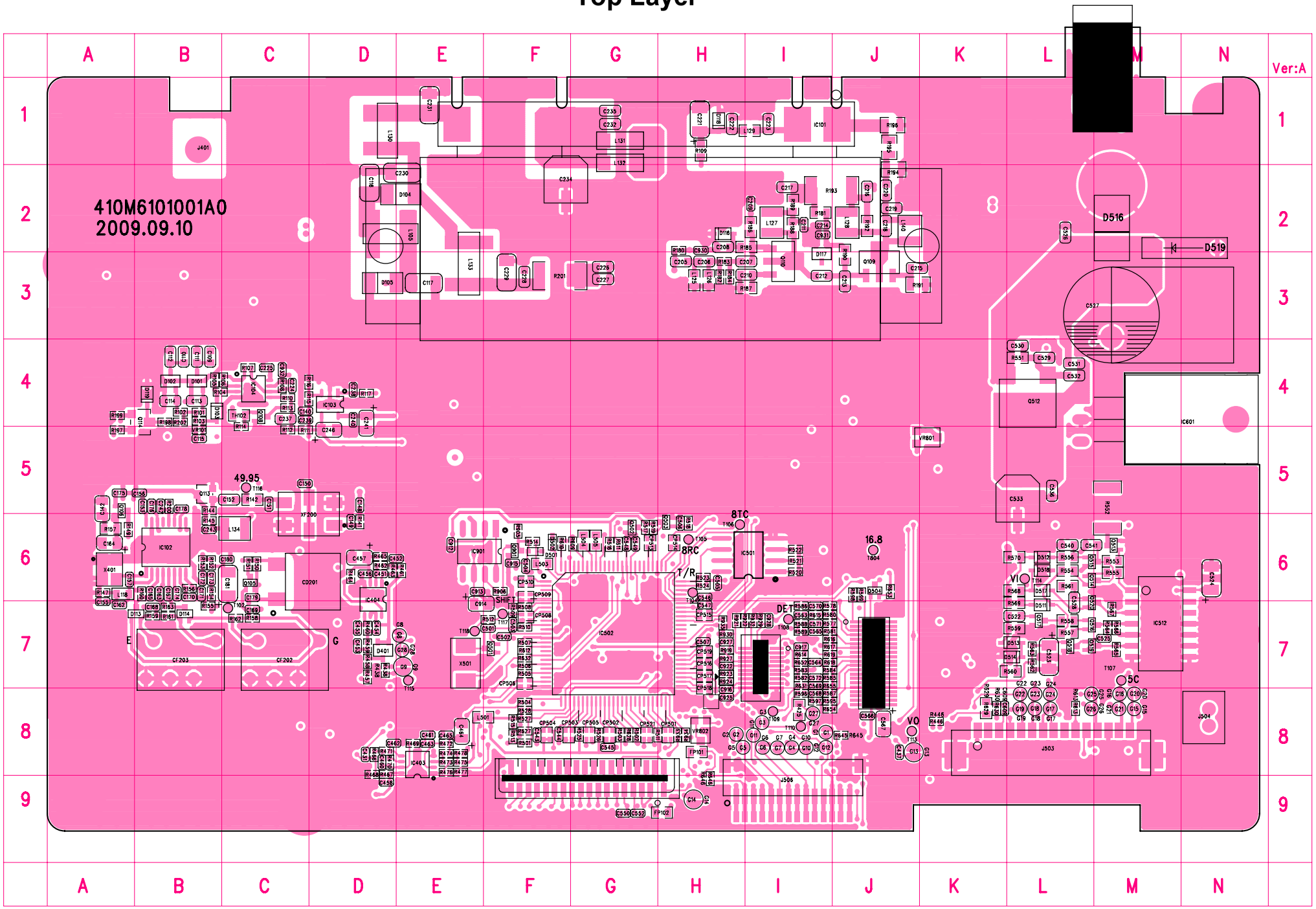
39	4310020000000	Volume switch (RoHS)	1
40		PCB of front panel (RoHS)	1
41	7400201000000	Light barrier (RoHS)	2
42	4210070000500	32-pin signal cable (RoHS)	1
43		PCB of main unit (RoHS)	1
44	7102606020000	Self-tapping screw ST2.6*6.0mm (RoHS)	5
45	6100479000000	Waterproof ring for radio unit (RoHS)	1

Note: Parts that are not marked with material number may vary with radio frequency band.

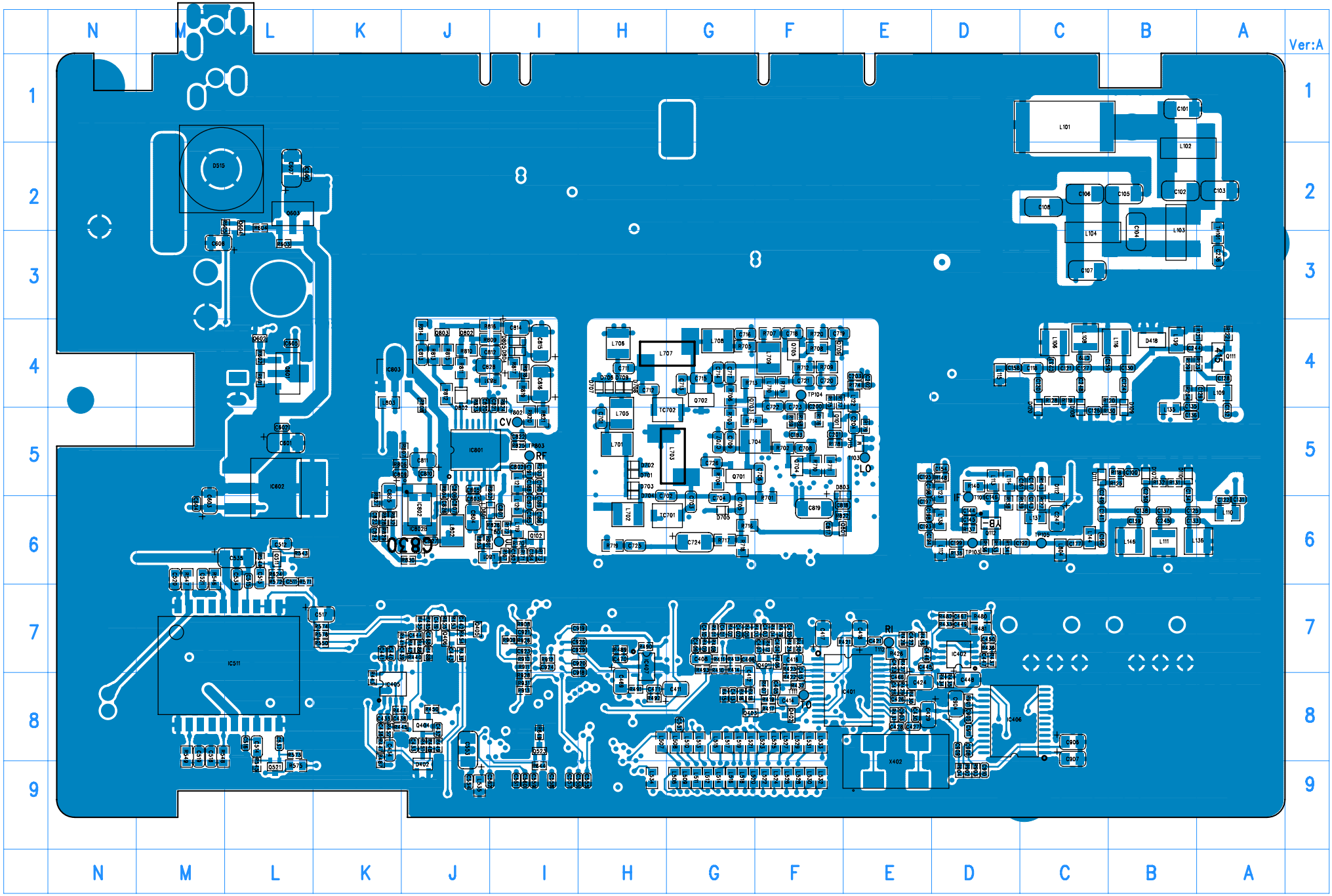
Packing


Owner's Manual
Power Cord
Mobile Radio
Microphone Hanger
Adjustment Knobs
Screw Set
Washers
Fuse
Mounting Bracket
Microphone and Microphone Cable

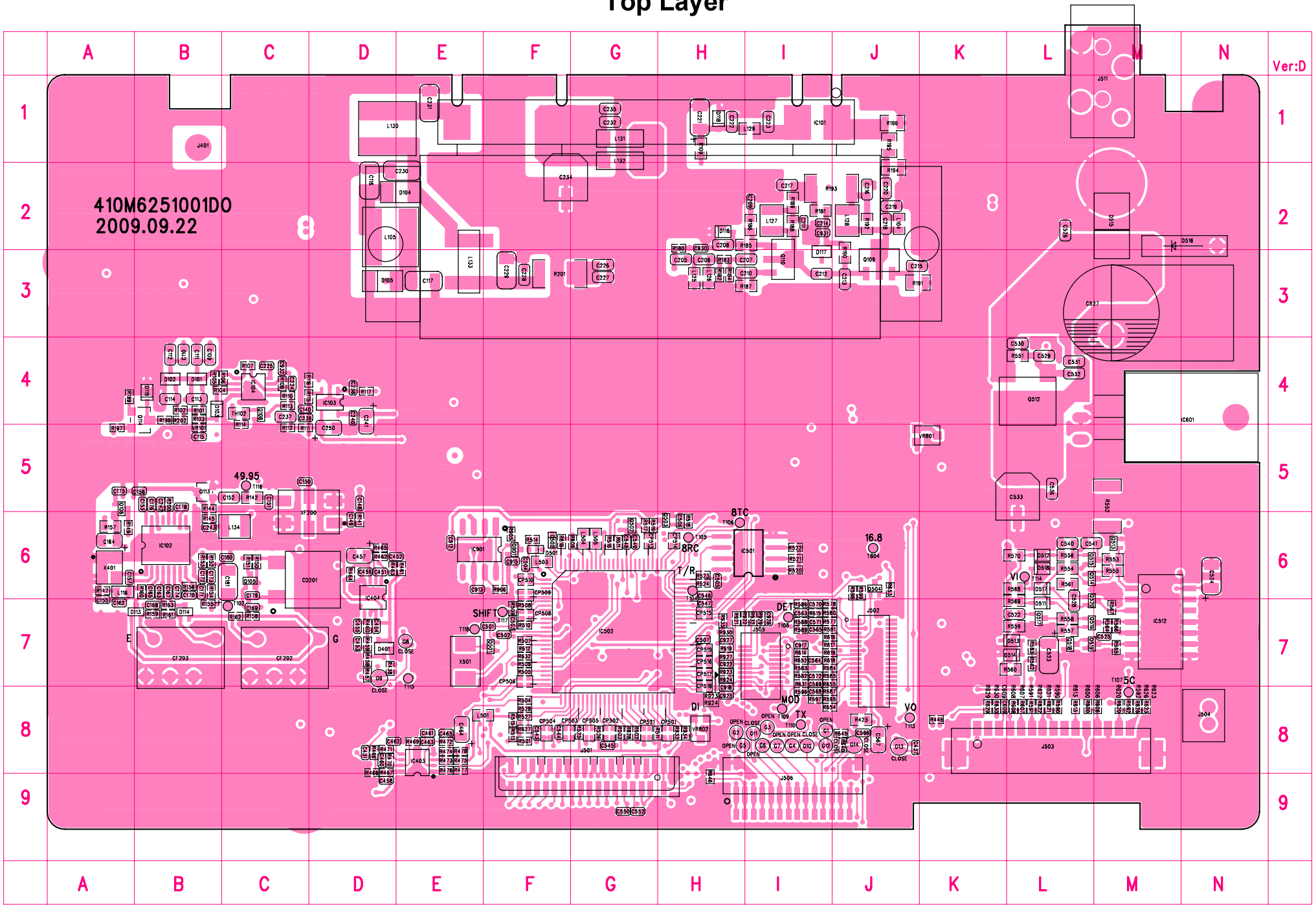
TM-628H VHF PCB View (Main Board Unit)
Top Layer



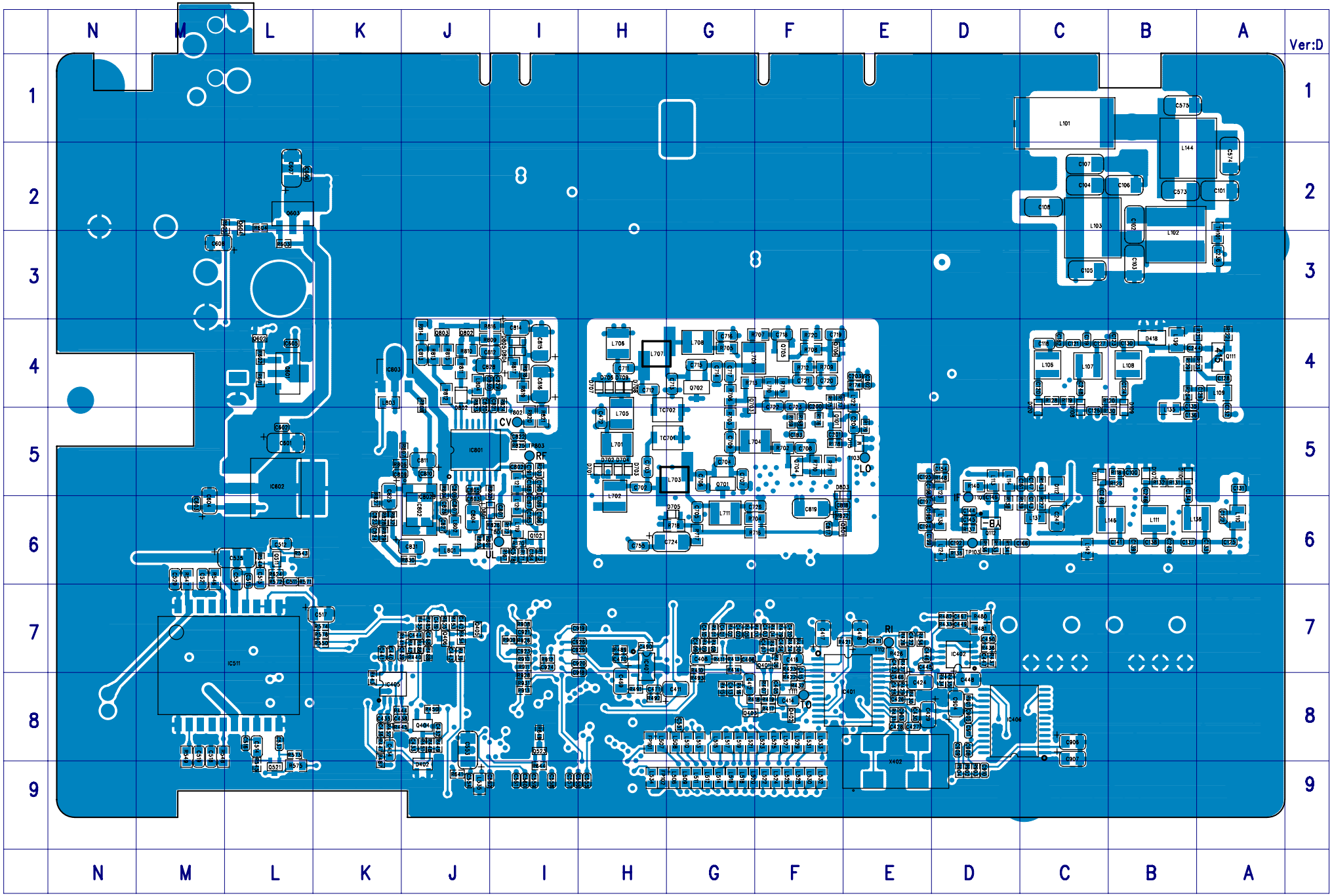
TM-628H VHF PCB View (Main Board Unit)
Bottom Layer



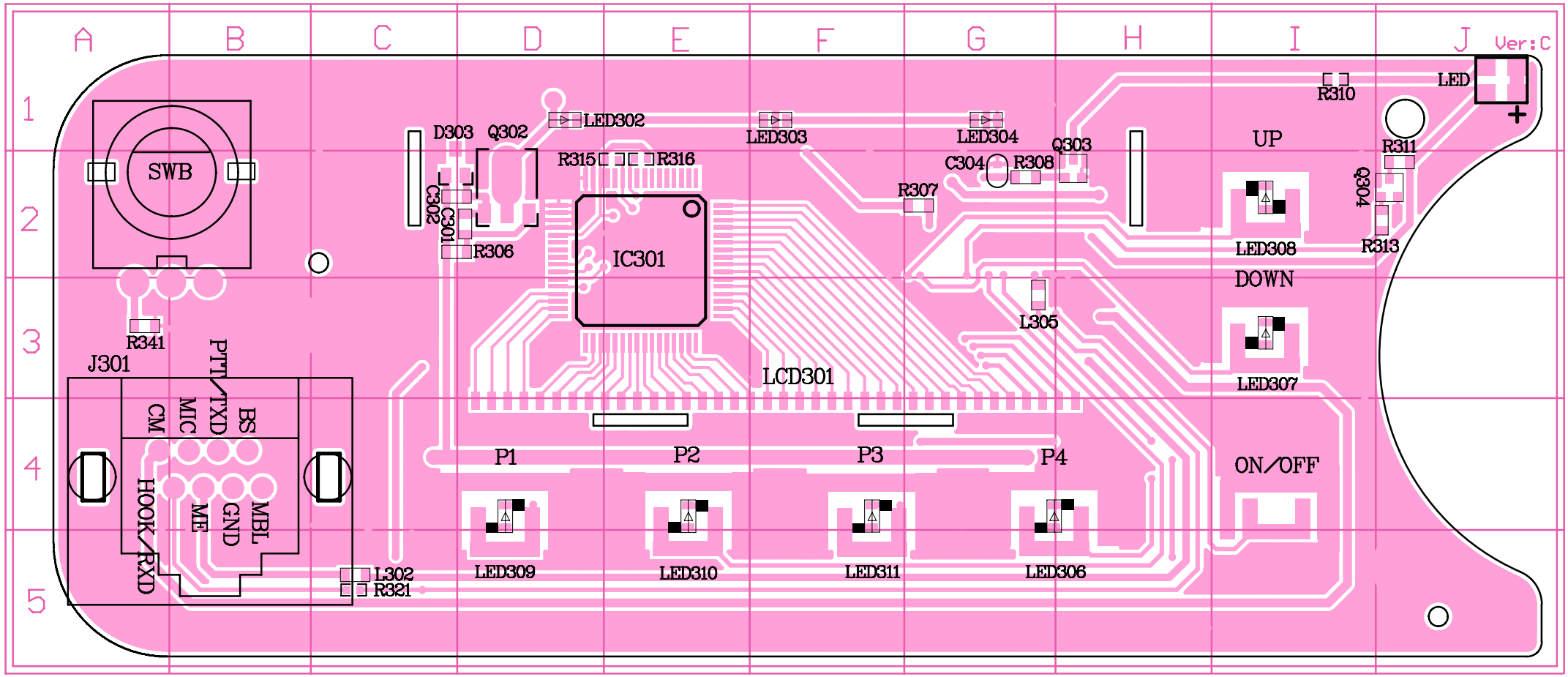
TM-628H UHF PCB View (Main Board Unit)
Top Layer



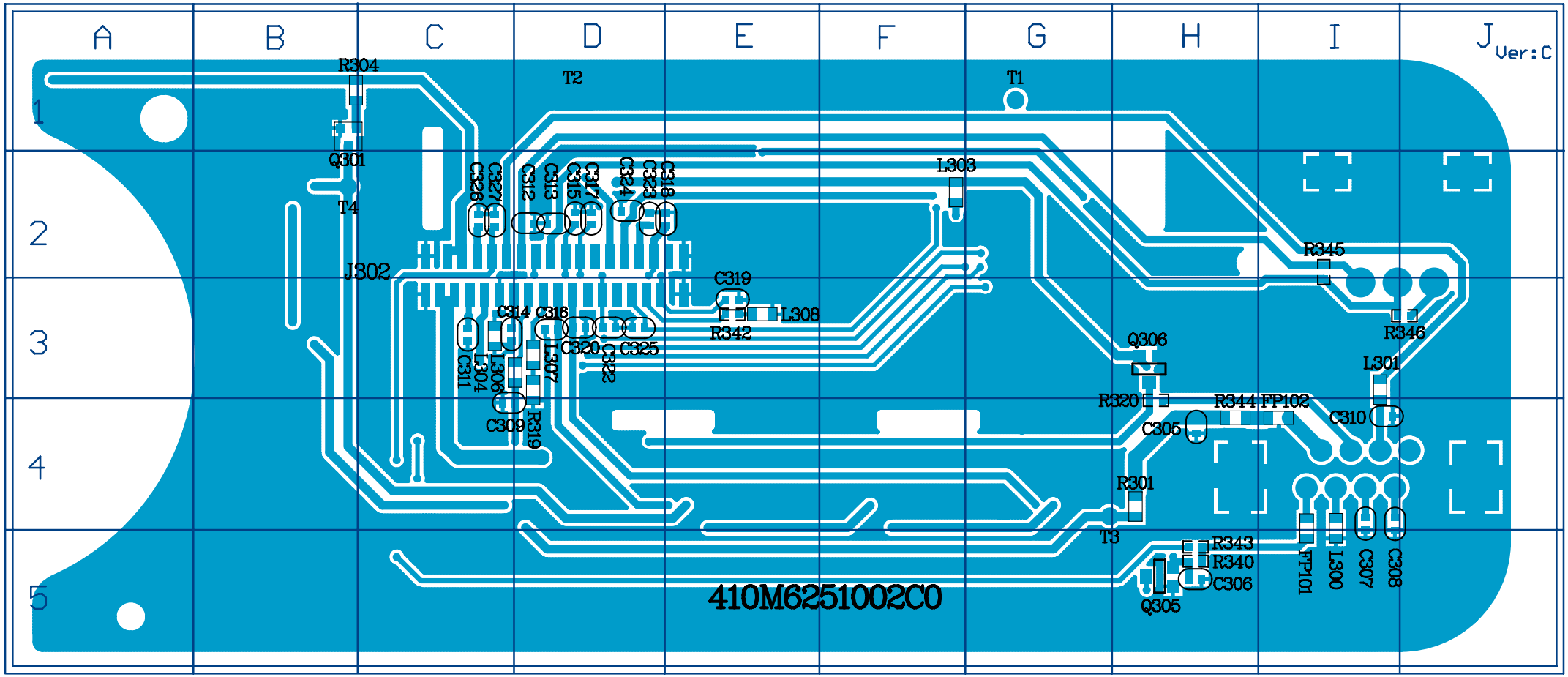
TM-628H UHF PCB View (Main Board Unit)
Bottom Layer



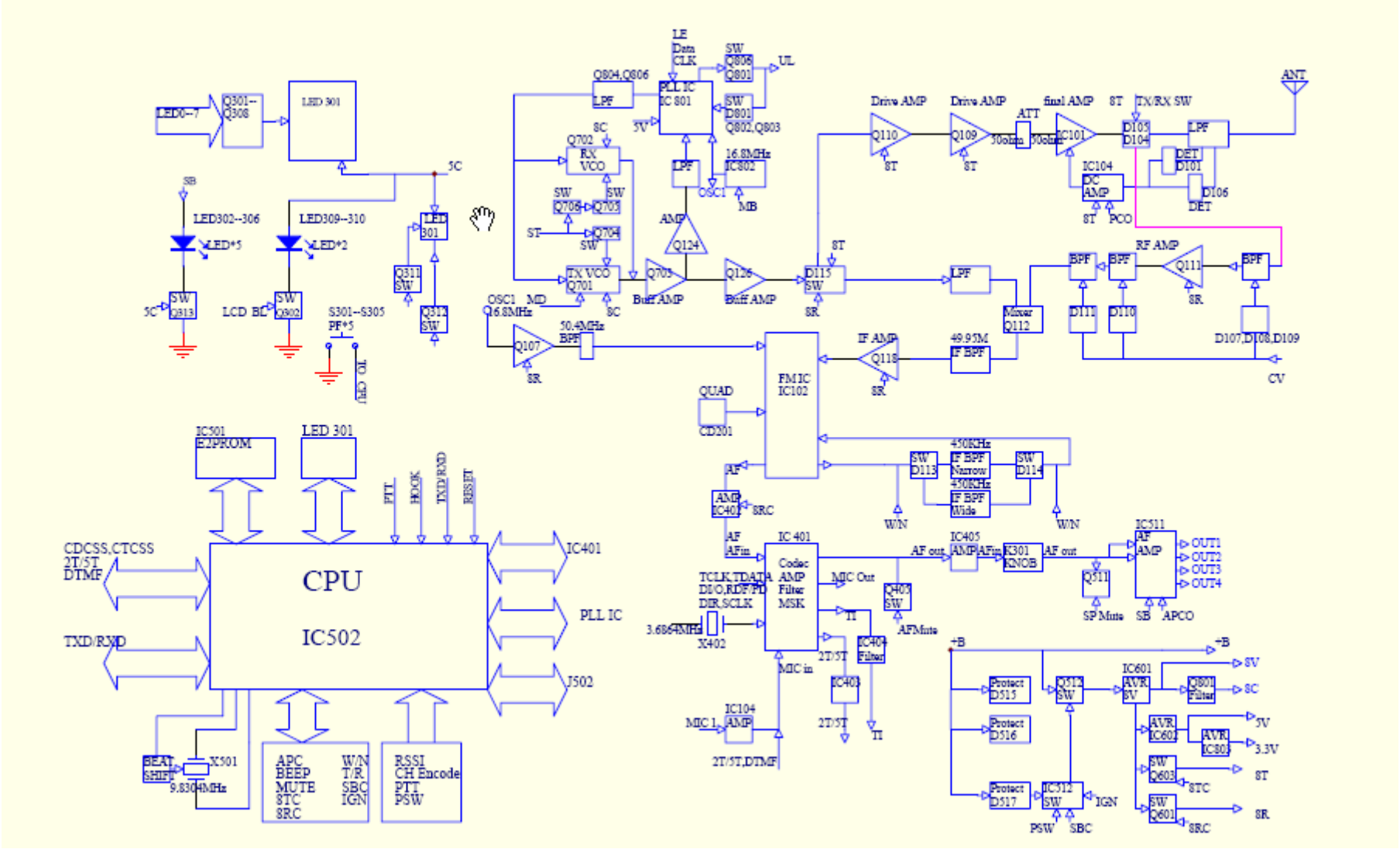
TM-628H UHF/VHF PCB View (Front Panel)
Top Layer



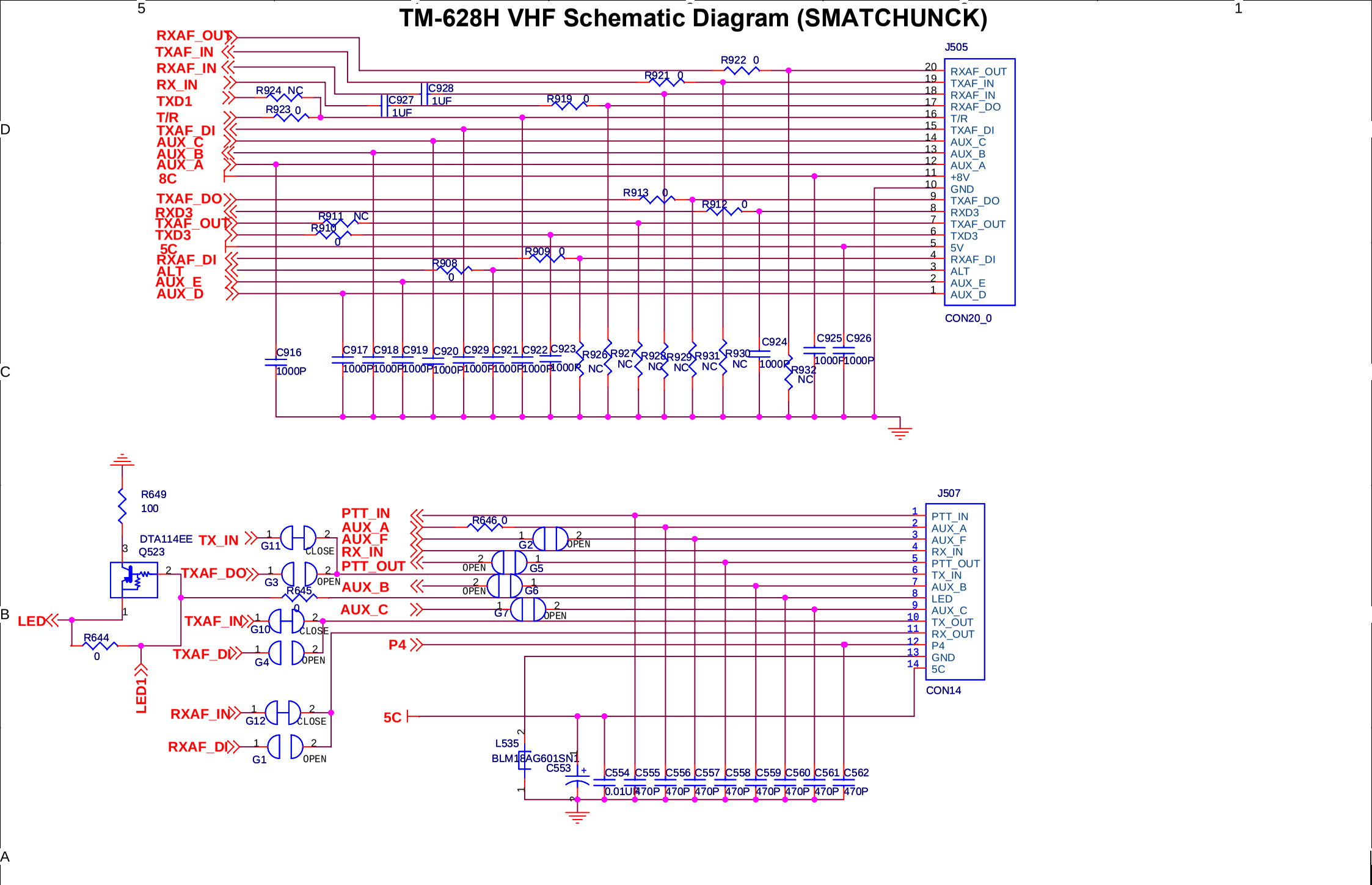
TM-628H UHF/VHF PCB View (Front Panel)
Bottom Layer



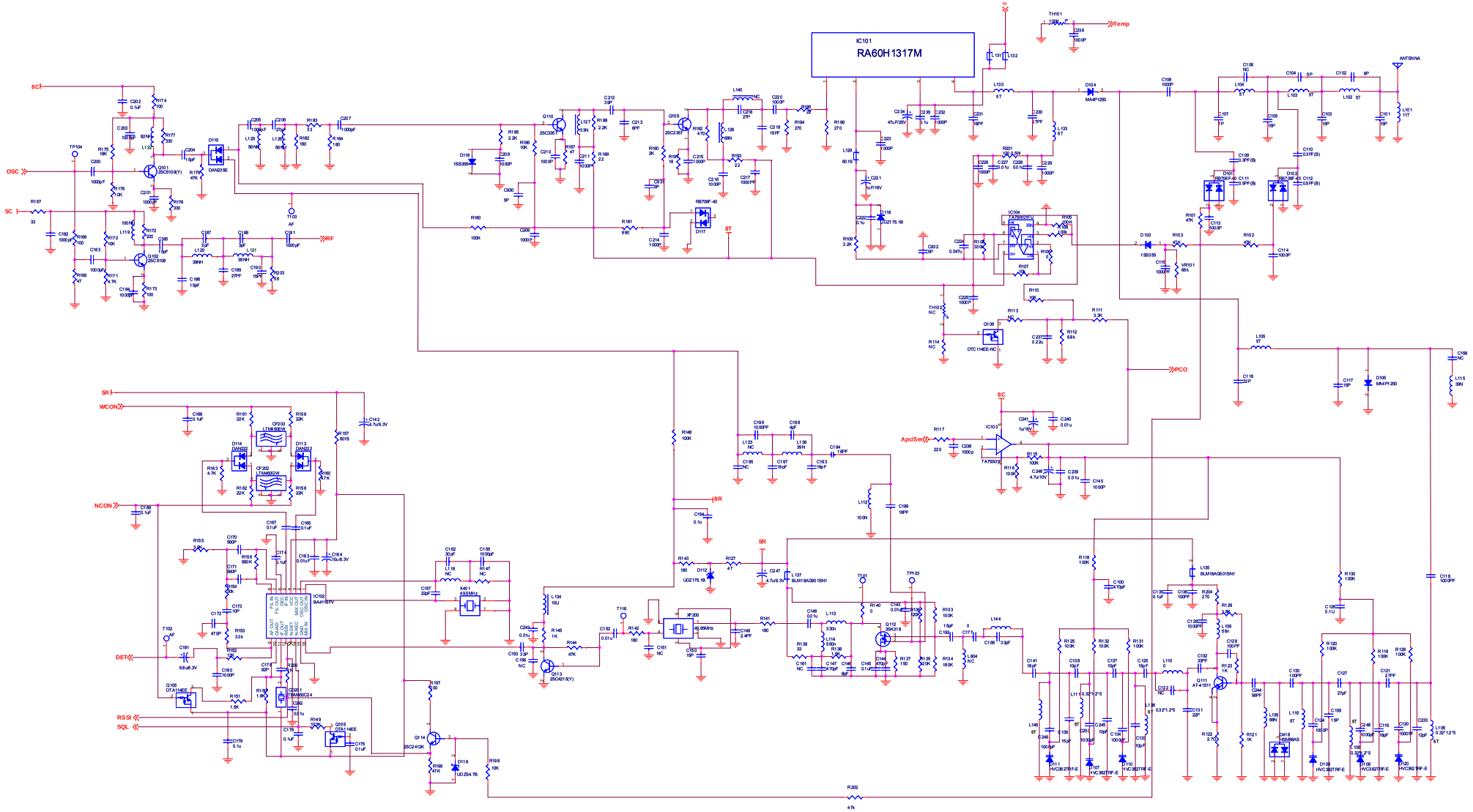
TM-628H UHF/VHF Block Diagram



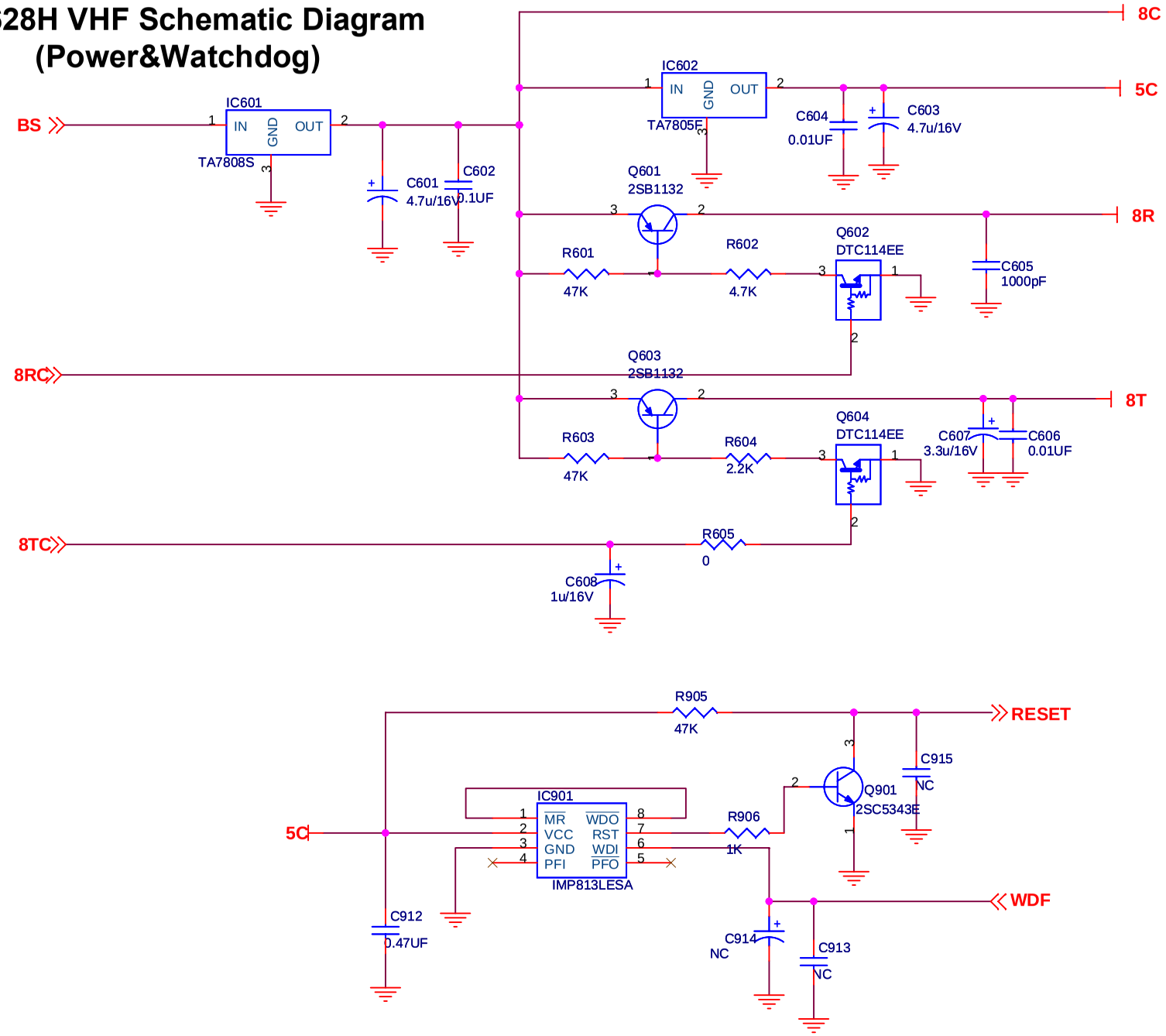
TM-628H VHF Schematic Diagram (SMATCHUNCK)



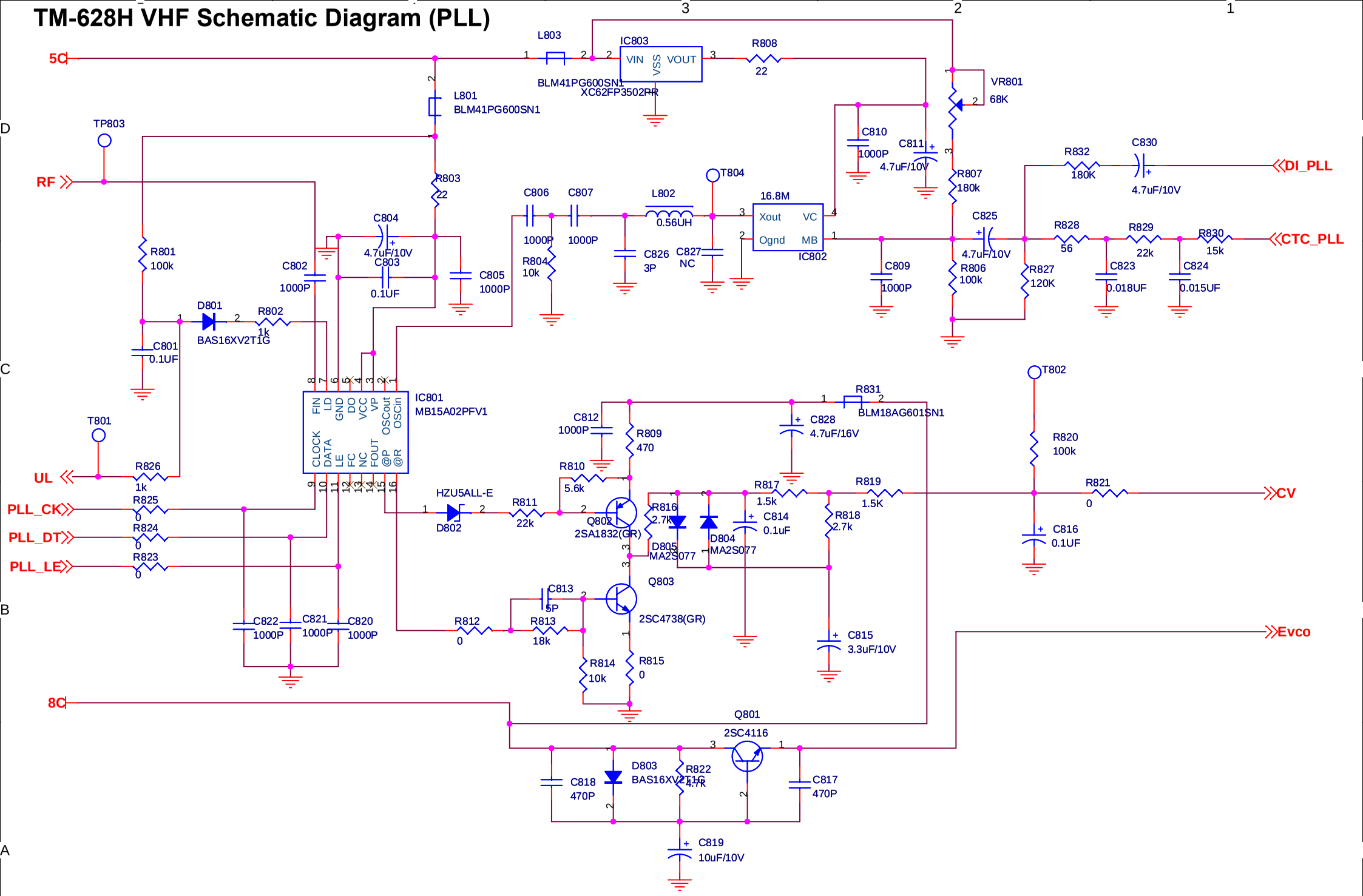
TM-628H VHF Schematic Diagram (TX/RX)



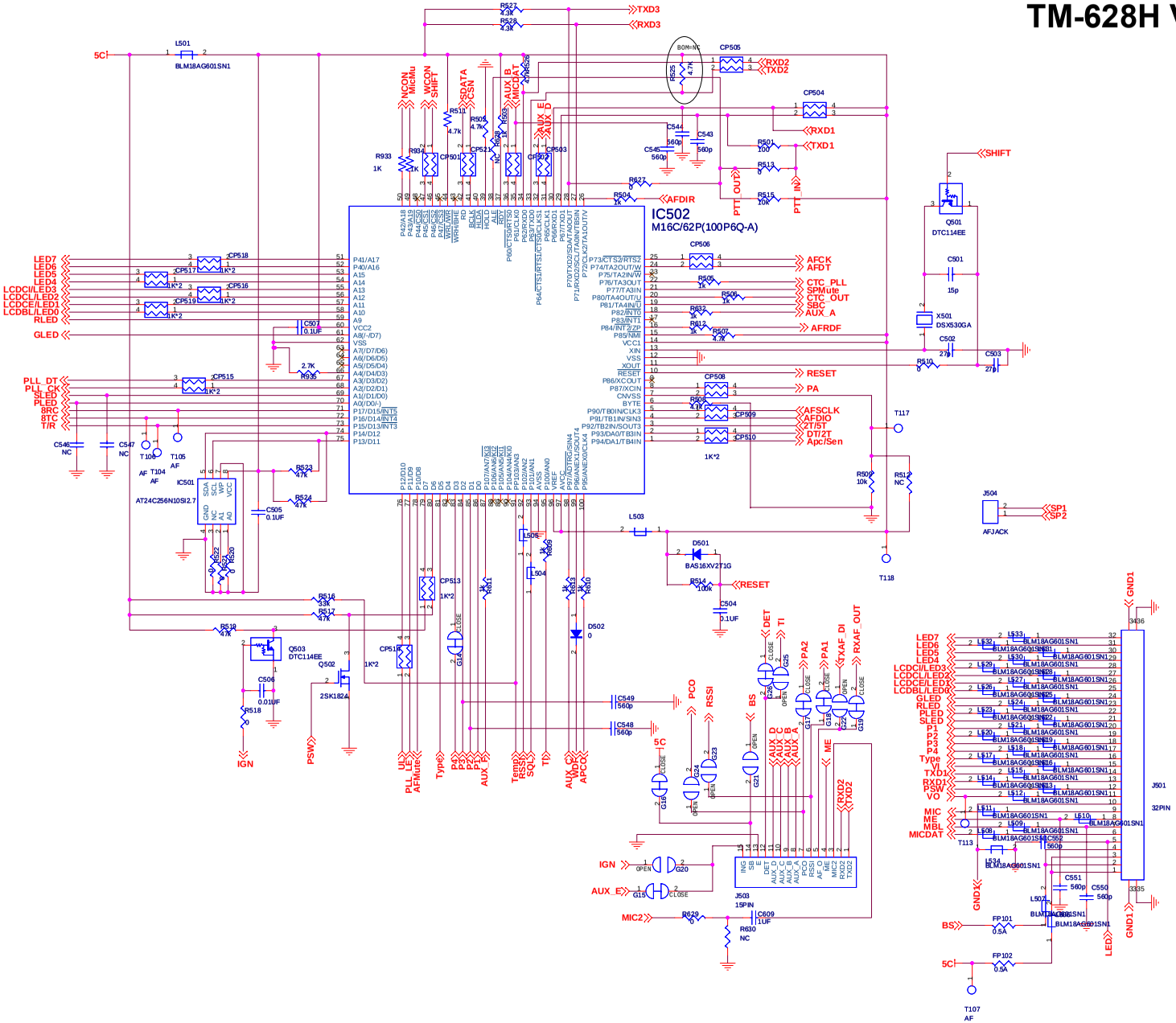
TM-628H VHF Schematic Diagram (Power&Watchdog)



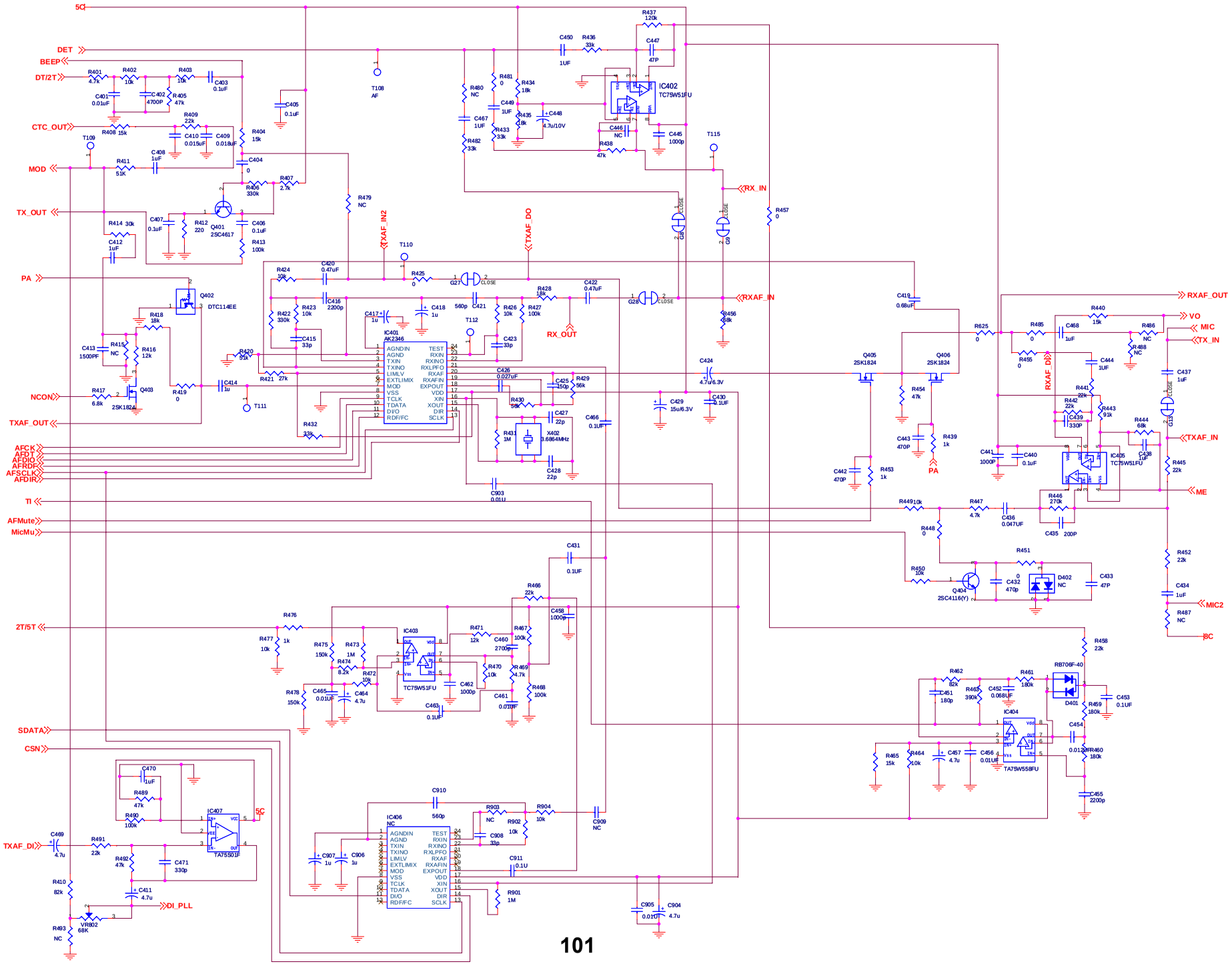
TM-628H VHF Schematic Diagram (PLL)



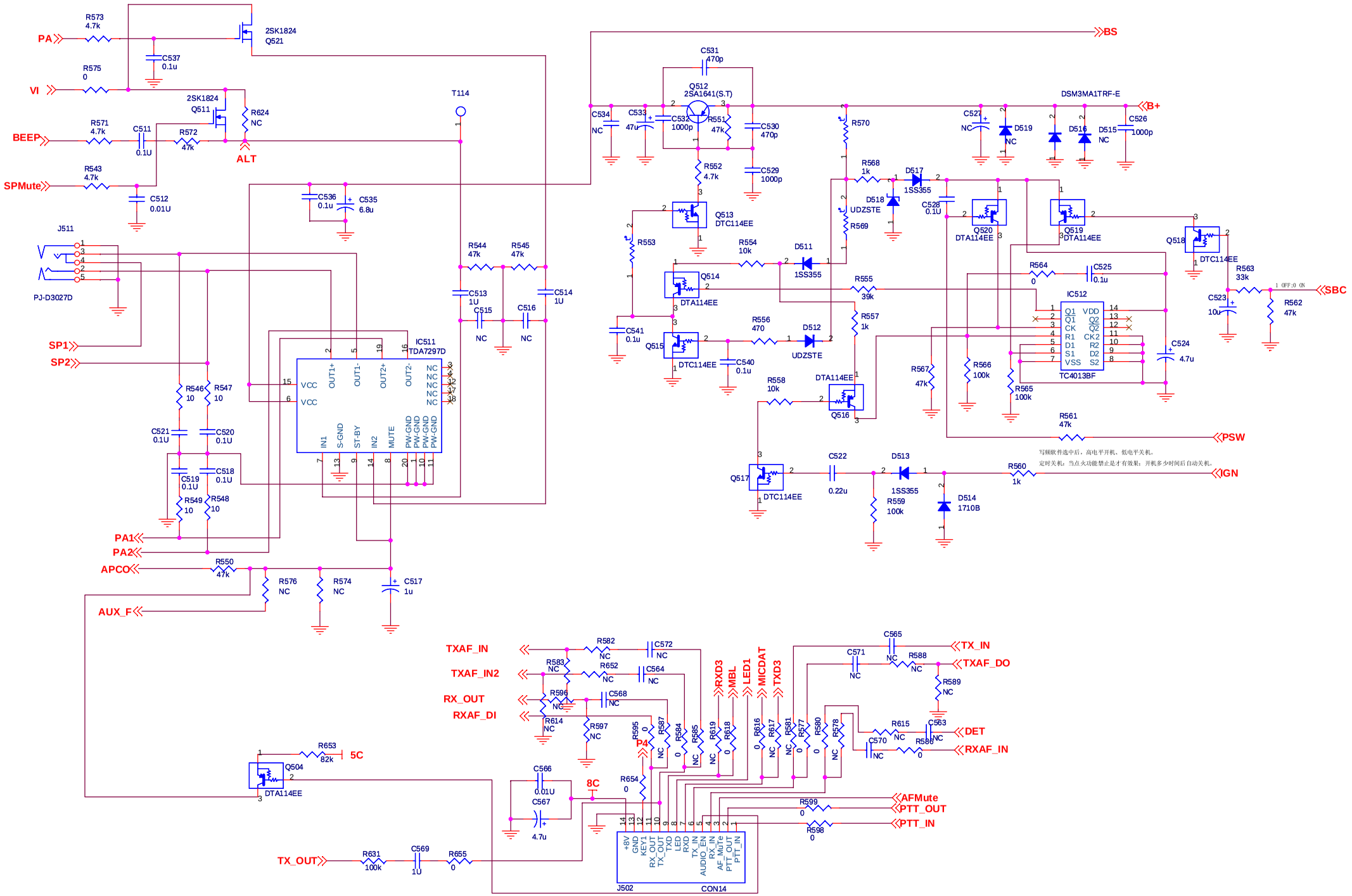
TM-628H VHF Schematic Diagram (MCU)



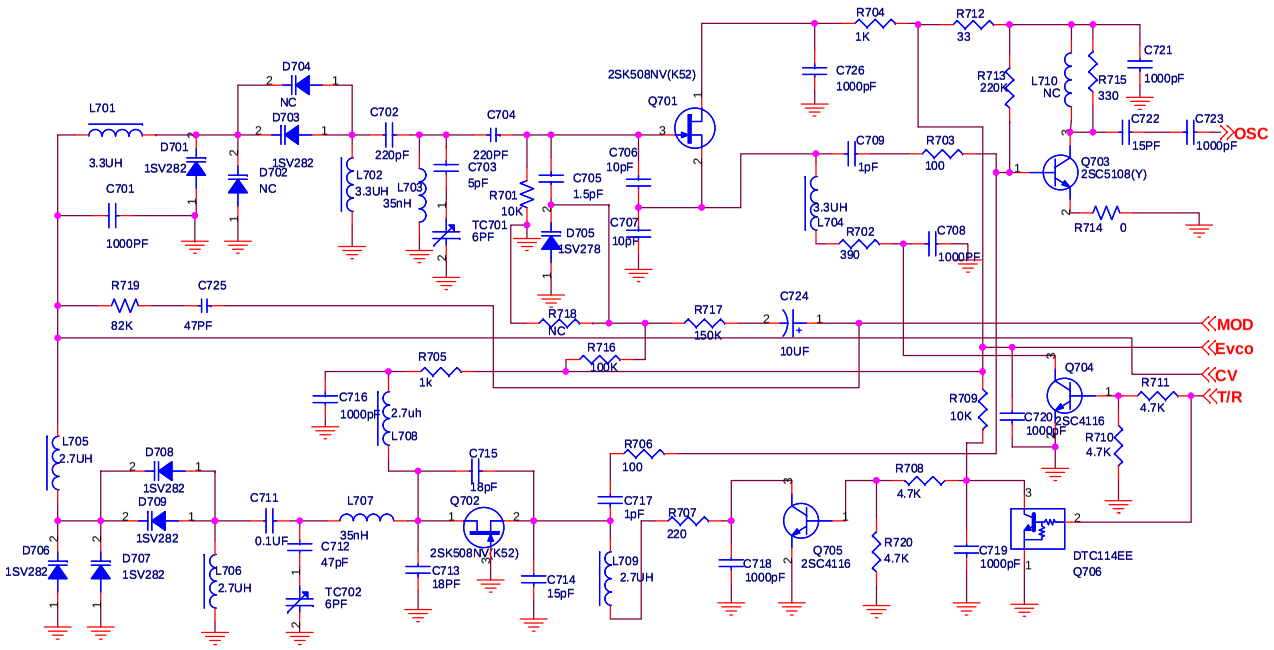
TM-628H VHF Schematic Diagram (Baseband)



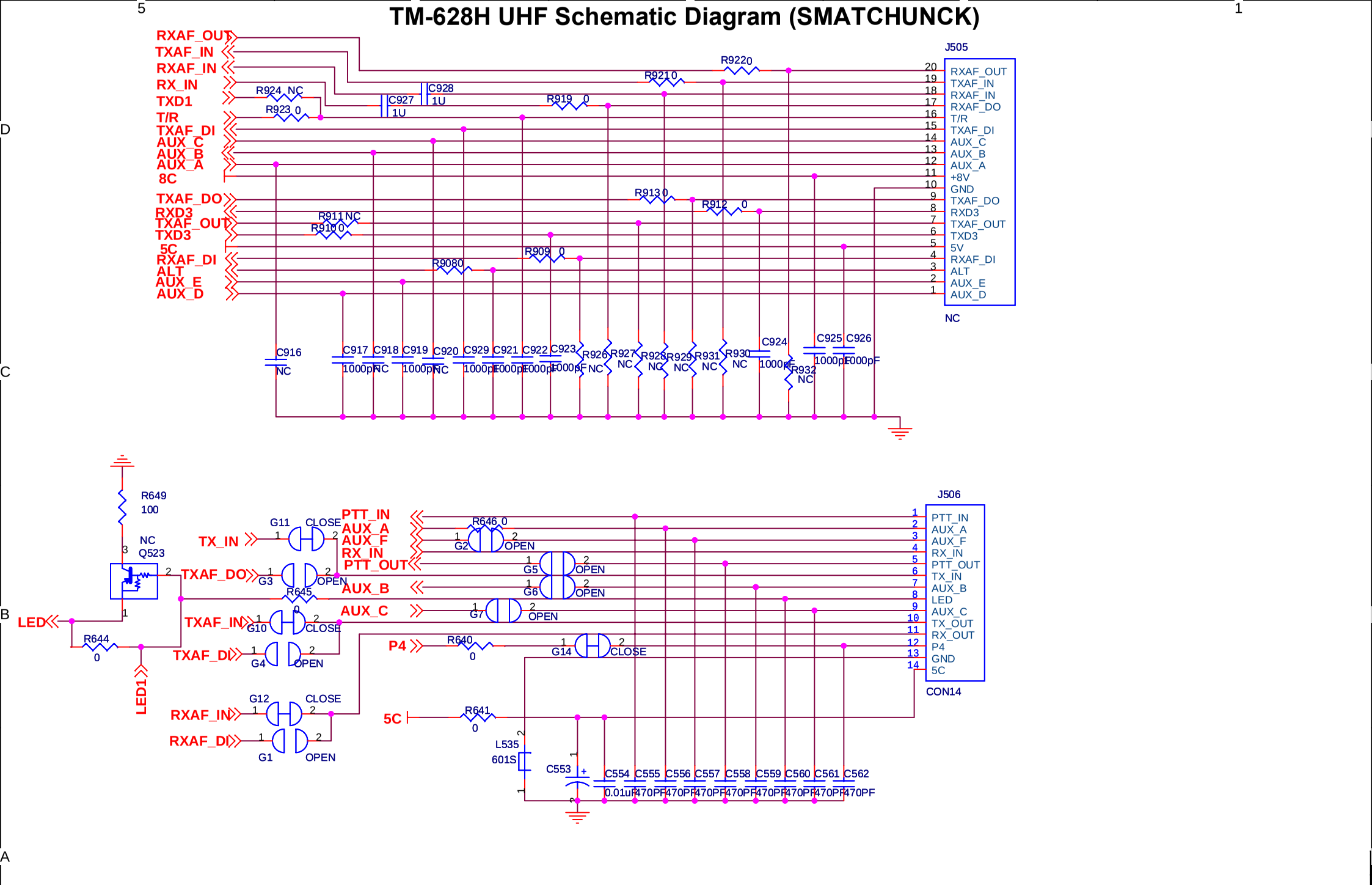
TM-628H VHF Schematic Diagram (AFPwr)



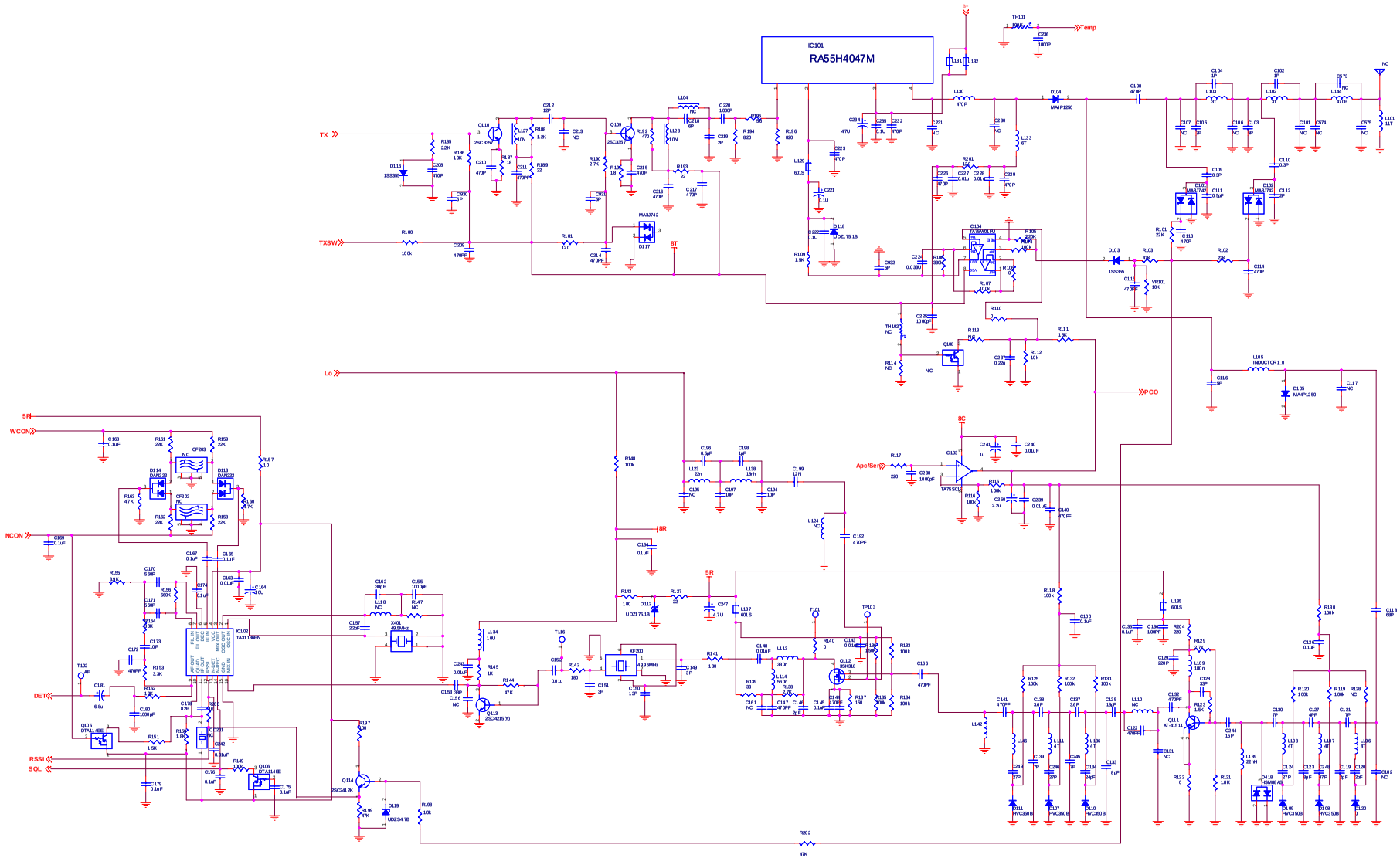
TM-628H VHF Schematic Diagram (VCO)



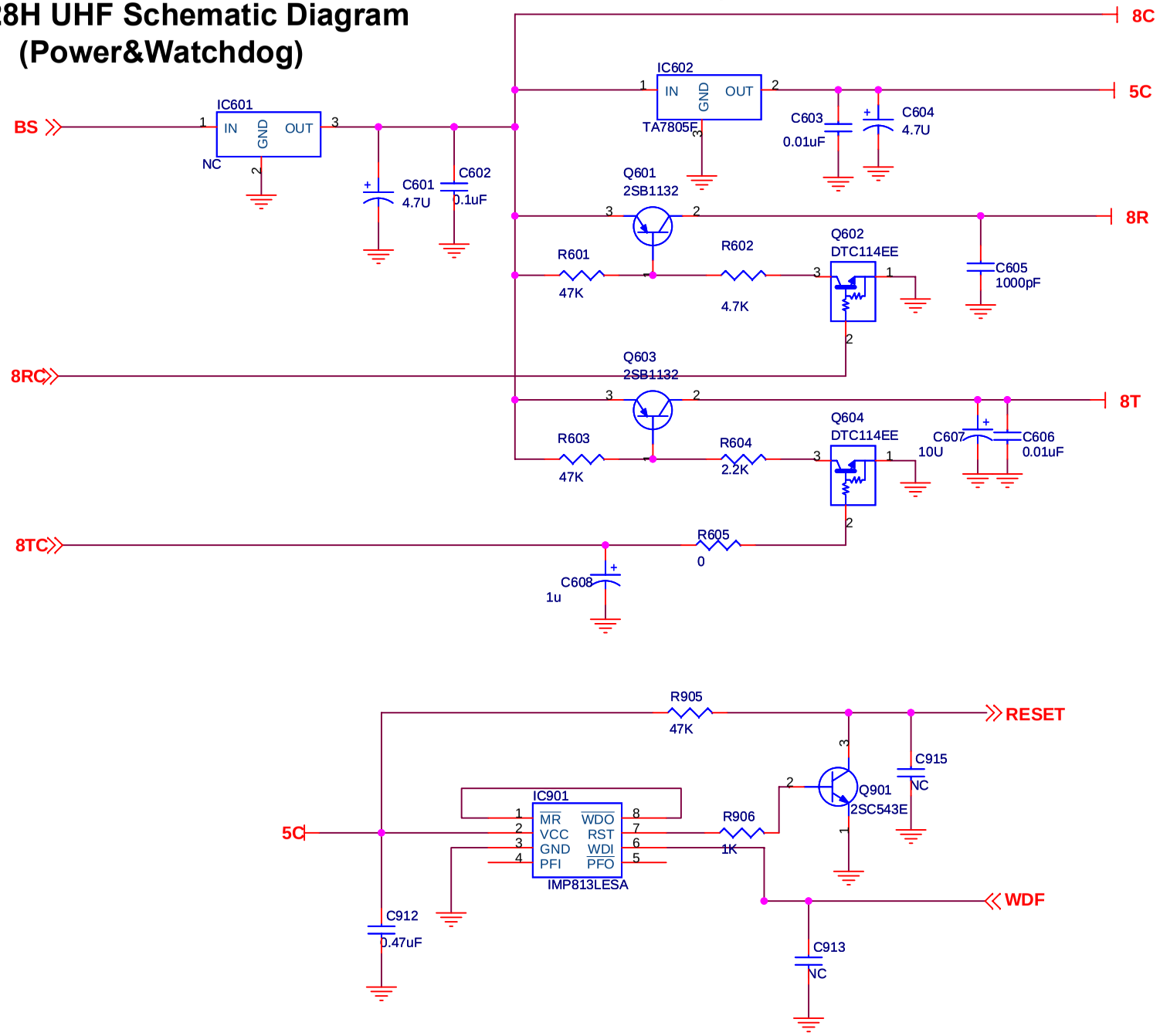
TM-628H UHF Schematic Diagram (SMATCHUNCK)



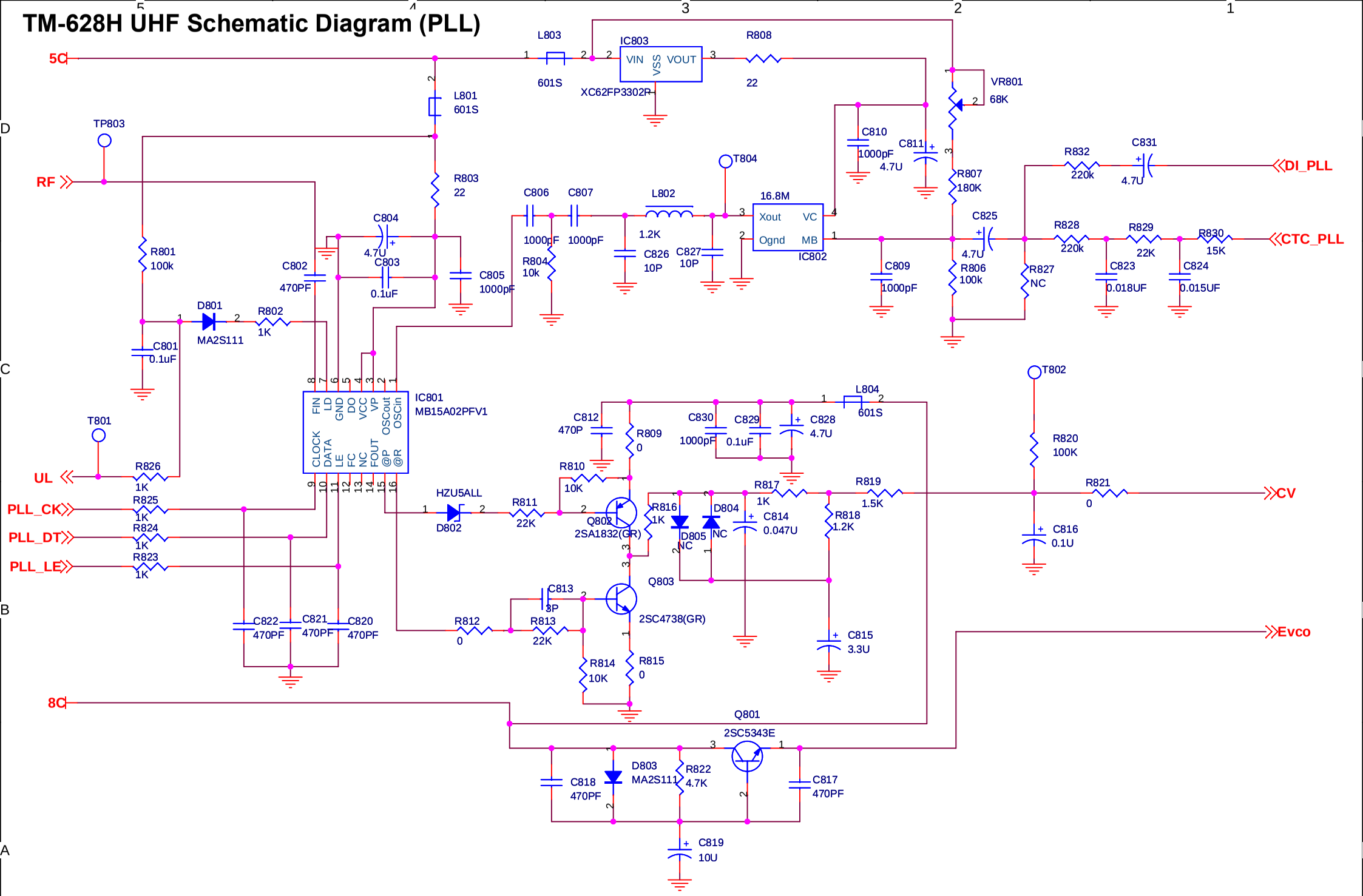
TM-628H UHF Schematic Diagram (TX/RX)



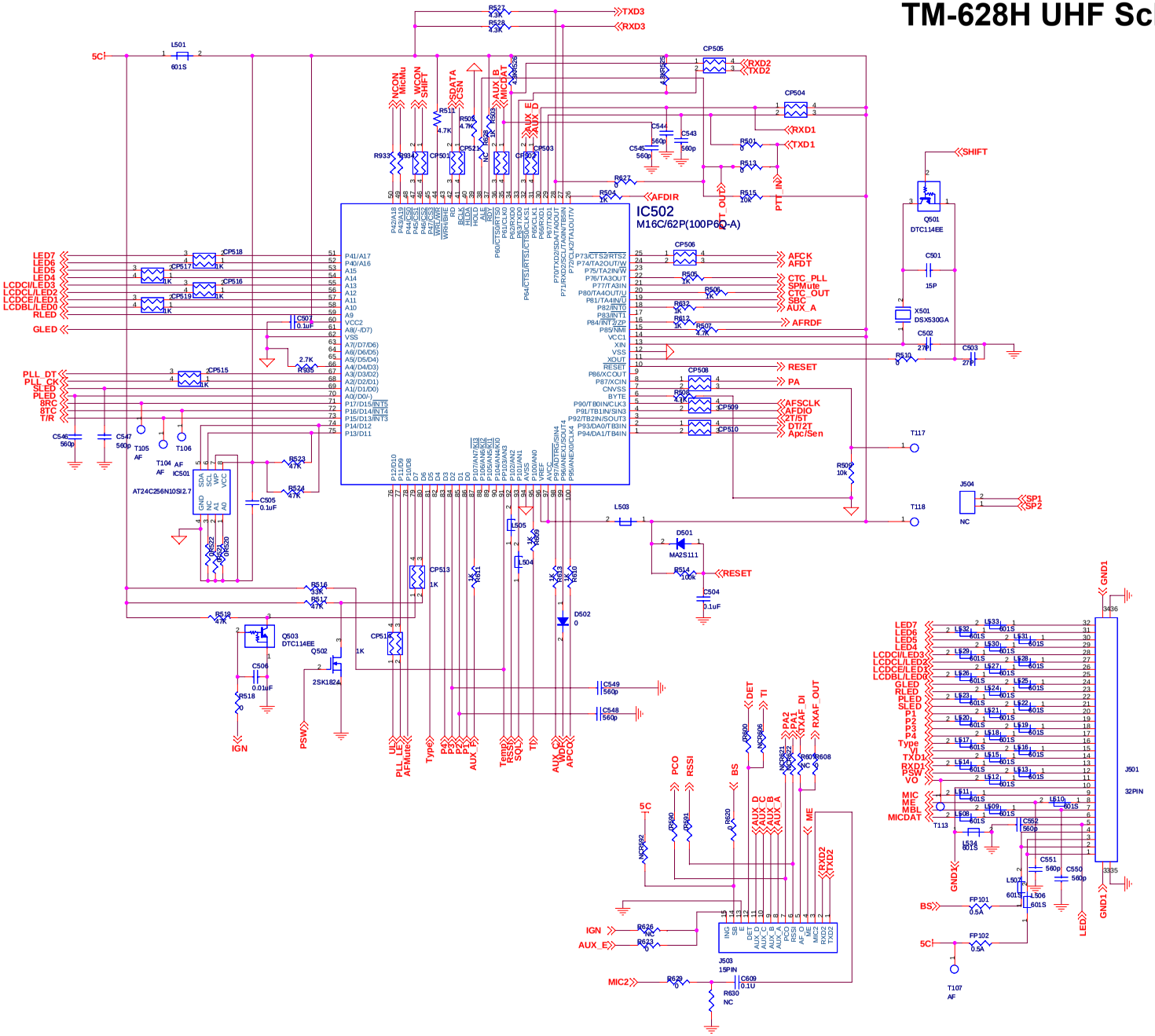
TM-628H UHF Schematic Diagram (Power&Watchdog)



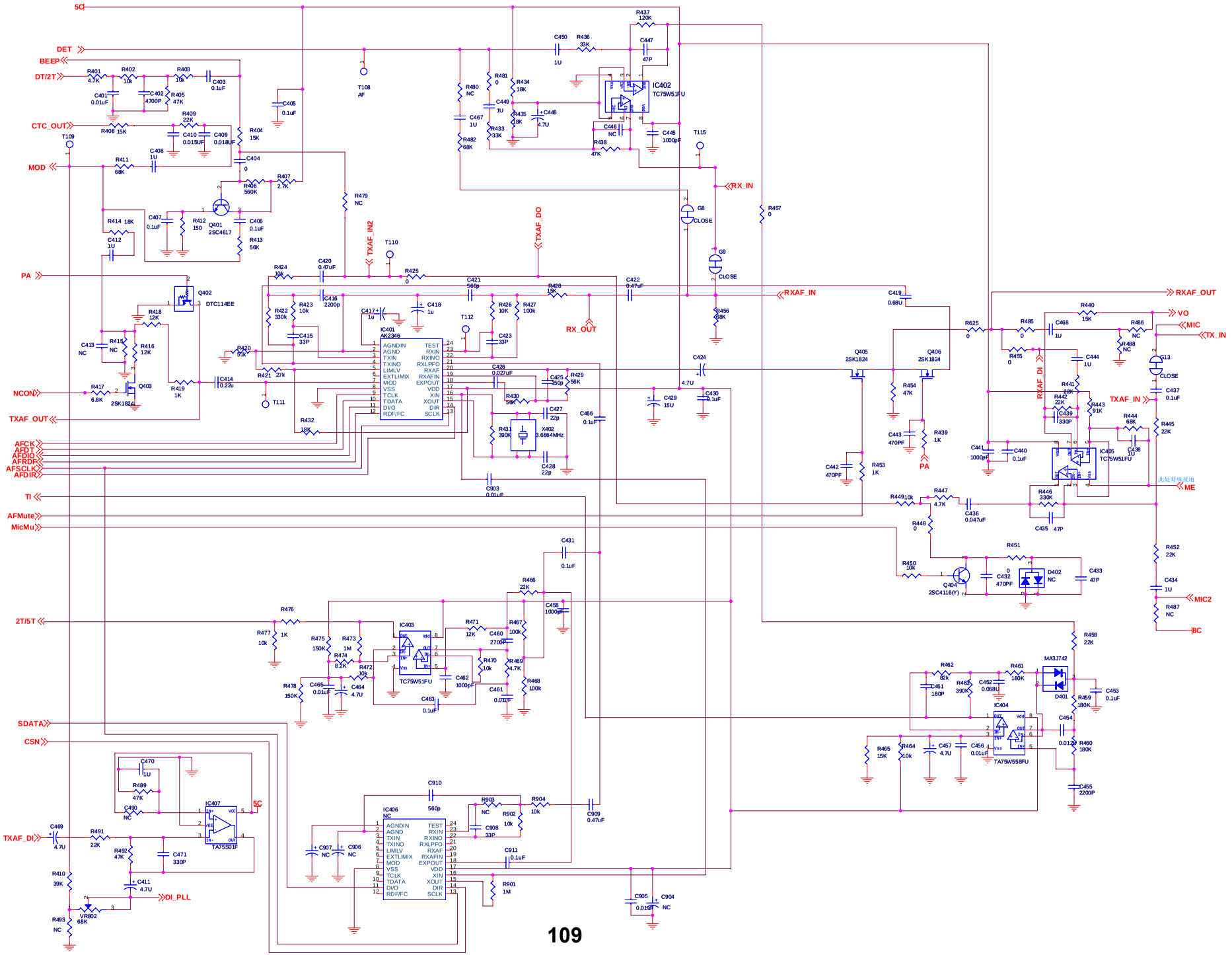
TM-628H UHF Schematic Diagram (PLL)



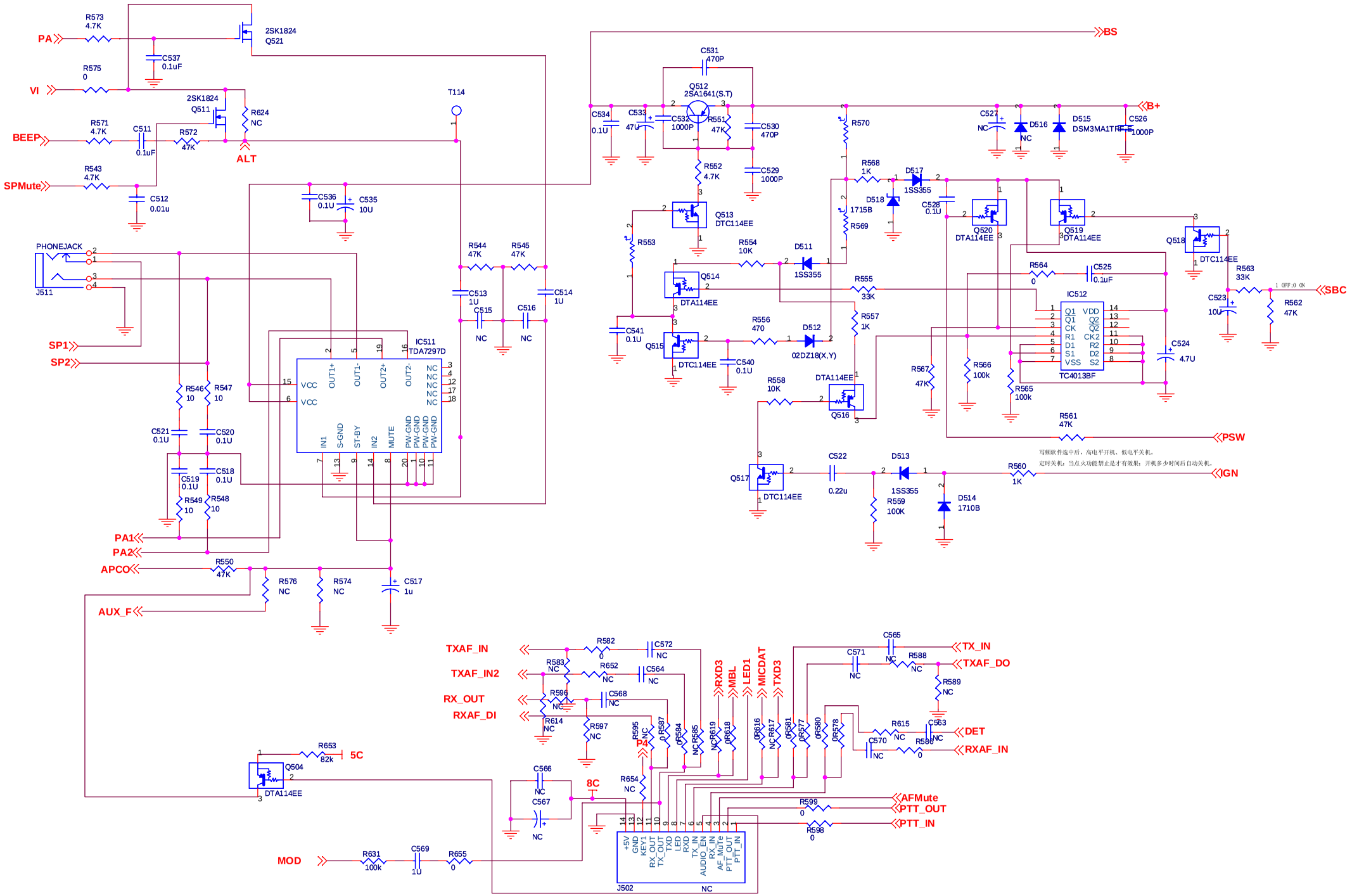
TM-628H UHF Schematic Diagram (MCU)



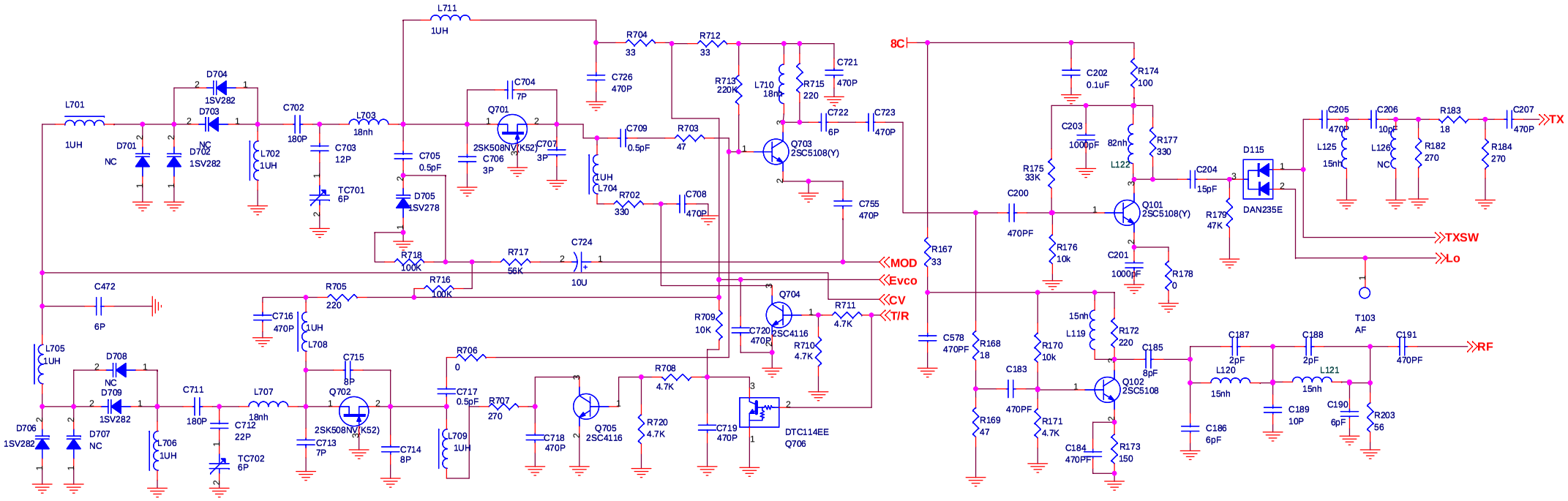
TM-628H UHF Schematic Diagram (Baseband)



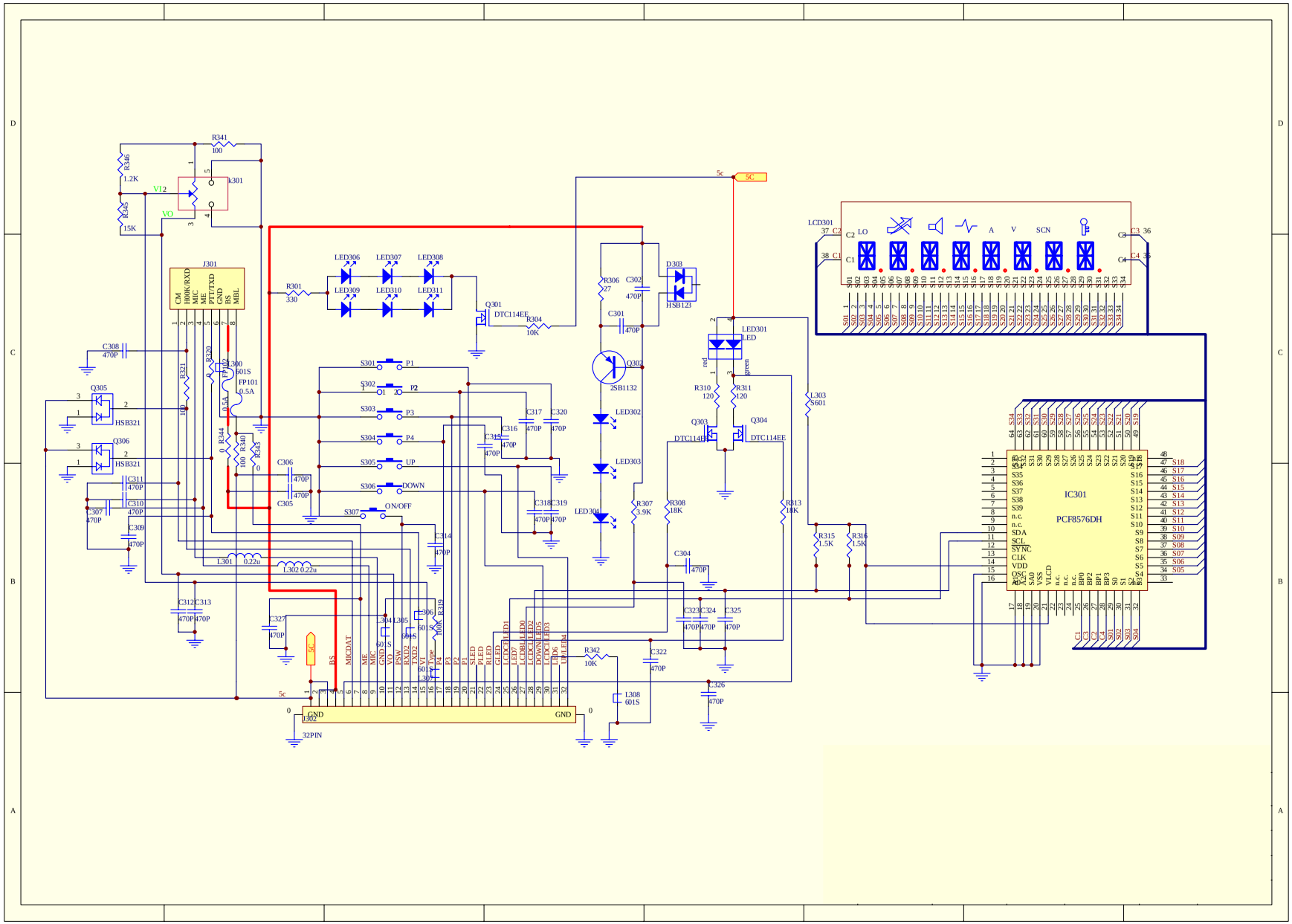
TM-628H UHF Schematic Diagram (AFPwr)



TM-628H UHF Schematic Diagram (VCO)



TM-628H UHF/VHF Schematic Diagram
(Front Panel)



Specifications

General		
Frequency Range		VHF: 136-174MHz UHF: 400-470MHz
Channel Capacity		128
Channel Spacing		25KHz/20KHz/12.5KHz
Operating Voltage		13.6V±15%
Current Drain	Standby	0.2A
	Receive	≤2A
	Transmit	≤13A (High power); ≤5A (Low power)
Operating Temperature		-30℃~+60℃
Dimensions (H×W×D)		48×154×161mm
Weight		1.228kg (without bracket)
Frequency Stability		±2.5ppm
Receiver		
Reference Sensitivity		0.28μV/0.33μv/0.35μV
Selectivity		75dB/70dB/65dB
Intermodulation		70dB/70dB/70dB
Spurious Response Rejection		70dB
Rated Audio Power Output (Internal)		Rated: 3W (@16Ω 3% distortion) Max.: 6W(@16Ω 5% distortion)
Rated Audio Power Output (External)		Rated: 10W (@8Ω 3% distortion) Max.: 12W(@8Ω 5% distortion)
Transmitter		
RF Power Output		V：50W/5W U：45W/5W
Spurious and Harmonics		<-20dBm
Modulation Limiting		5KHz/4KHz/2.5KHz
FM Noise		≥45dB(25KHz/20KHz)/40dB(12.5KHz)
Audio Distortion		<3%

All Specifications are tested according to TIA/EIA-603, and subject to change without notice due to continuous development.

Hytera endeavors to achieve the accuracy and completeness of this manual, but no warranty of accuracy or reliability is given. All the specifications and designs are subject to change without notice due to continuous technology development. Changes which may occur after publication are highlighted by Revision History contained in Service Manual.

No part of this manual may be copied, reproduced, translated, stored in a retrievable system, distributed, or transmitted in any form or by any means, electronic or mechanical, for any purpose without the express written permission of Hytera.